

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
TEXARKANA DIVISION**

LG DISPLAY CO., LTD.,

*Plaintiff,*

v.

TIANMA MICROELECTRONICS CO.,  
LTD.; TIANMA MICROELECTRONICS  
(HONG KONG) LIMITED; WUHAN  
TIANMA MICROELECTRONICS CO.,  
LTD.,

*Defendants.*

Civil Action No. 5:25-cv-78

**COMPLAINT AND  
DEMAND FOR JURY TRIAL**

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff LG Display Co., Ltd. (“LG Display”), by and through its undersigned counsel, files this complaint under 35 U.S.C. § 271 for Patent Infringement against Defendants Tianma Microelectronics Co., Ltd., Tianma Microelectronics (HONG KONG) Limited, and Wuhan Tianma Microelectronics Co., Ltd. (together, “Tianma” or “Defendants”) and further alleges as follows, upon actual knowledge as to LG Display itself and its own acts, and upon information and belief as to all other matters.

**OVERVIEW**

1. This is an action for patent infringement by LG Display.
2. Incorporated in February 1985, LG Display’s business has been focused on the research, development, manufacture, and sale of products that incorporate display technologies such as Organic Light Emitting Diode (“OLED”) and Thin Film Transistor Liquid Crystal Display

(“TFT-LCD” or “LCD”).<sup>1</sup> LG Display’s customers primarily consist of global set makers with sales subsidiaries located in the United States, Germany, Japan, Taiwan, China, and Singapore.<sup>2</sup>

3. In 2024, LG Display had approximately \$19.4 billion in worldwide sales of display panels.<sup>3</sup> Sales were around \$16.3 billion in 2023 and \$20.45 billion in 2022.<sup>4</sup>

4. LG Display invests approximately 8% of its sales into research and development expenses, continually creating customer value through systematic R&D activities for new products and technologies.<sup>5</sup> Leveraging LG Display’s competitive R&D activities, LG Display is leading the display market by providing differentiated values in display panel products utilizing OLED and TFT-LCD technologies for uses including television, IT, mobile products, and automobiles.<sup>6</sup>

5. As of December 31, 2024, LG Display’s cumulative patent portfolio (including patents that have already expired) included over 66,000 patents worldwide, including the United States.<sup>7</sup>

6. Senior Vice President and head of IT Display Business at LG Display, Dr. Byeong Koo Kim, has been selected as the 2025 Society for Information Display (“SID”) fellow for pioneering the commercialization of OLED and TFT-LCD technologies for automotive and IT products.<sup>8</sup> SID is one of the world’s most prestigious display organization and annually recognizes experts who have contributed to display technology innovation and industry development.<sup>9</sup>

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<sup>1</sup> LG Display Co., Ltd., Report of Foreign Private Issuer Pursuant to Rule 13a-16 or 15d-16 Under the Securities Exchange Act of 1934 (Form 6-K) (Mar. 12, 2025) at 7.

<sup>2</sup> *Id.*

<sup>3</sup> *Id.* at 14.

<sup>4</sup> *Id.*

<sup>5</sup> *Id.* at 8.

<sup>6</sup> *Id.*

<sup>7</sup> *Id.* at 20.

<sup>8</sup> Lori A. Wilson, 2025 SID Honors & Awards, <https://sid.onlinelibrary.wiley.com/doi/full/10.1002/msid.1560> (last visited May 28, 2025).

<sup>9</sup> LG DISPLAY WINS SID DISPLAY WEEK 2024’S ‘SPECIAL RECOGNITION AWARD,’ May 13, 2024, <https://perma.cc/NDN5-2HN4> (last visited May 28, 2025).

7. Dr. Joon-young Yang, head of LG Display's Advanced Technology Laboratory, was selected to receive the Special Recognition Award at SID Display Week 2024.<sup>10</sup> Dr. Yang, a renowned display industry expert with over 30 years of experience, was recognized for his pioneering work on a wide range of next-generation display technologies, including OLEDoS, stretchable displays, and high-resolution displays.<sup>11</sup>

8. As a leading technology innovator in the display industry, LG Display has been recognized in the industry for its OLED products<sup>12</sup> for smartphones, smartwatches, automotive products, and foldable notebook computers, along with its advanced thin OLED products for tablets, among others.<sup>13</sup>

9. With respect to TFT-LCD panels, LG Display is leading the market with its competitive advantages in technology, including through its IPS, Oxide, and LTPS technology-based ultra-large television panels; desktop and notebook monitors featuring high resolutions, differentiated designs, and high frequency refresh rates; and specialized products for automotive, commercial, and medical uses.<sup>14</sup> LG Display's production facilities are also equipped to produce TFT-LCD panels incorporating Advanced In-cell Touch technology ("AIT").<sup>15</sup>

10. Companies such as Hitachi Display, Ltd., HannStar Display Corporation, AU Optronics Corporation and Innolux Corporation have held licenses to LG Display's patented TFT-LCD technologies.<sup>16</sup>

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<sup>10</sup> *Id.*

<sup>11</sup> *Id.*

<sup>12</sup> See e.g., DIA Awards Archive, Soc'y for Info. Display, <https://www.sid.org/Awards/Display-Industry-Awards/DIAAwardsArchive> (last visited June 10, 2024); Key Points: LG Display Wins Technology Award for its OLED TV Panels at HiVi Grand Prix 2022, Nov. 16, 2022, <https://perma.cc/3WB7-KZEV> (last visited May 28, 2025); OLED SHELF, <https://perma.cc/3SB9-3Z2J> (last visited May 28, 2025).

<sup>13</sup> LG Display Co., Ltd., Report of Foreign Private Issuer Pursuant to Rule 13a-16 or 15d-16 Under the Securities Exchange Act of 1934 (Form 6-K) (Mar. 12, 2025) at 10.

<sup>14</sup> *Id.* at 10.

<sup>15</sup> *Id.*

<sup>16</sup> *Id.* at 17, 241.

11. LG Display has had regular and continuous business in Texas at least through its two branches: Austin Branch (9600 Great Hills Trail, Suite 150W, Austin, TX 78759); and Houston Branch (19500 State Highway 249, Suite 260, Houston, TX 77070).

12. LG Display is forced to bring this action against Tianma as a result of Tianma's knowing and ongoing infringement of LG Display's patents, which is described in further detail herein.

### **THE PARTIES**

13. Plaintiff LG Display is a South Korean corporation with a registered place of business at LG Twin Tower, 128, Yeoui-daero, Yeongdeungpo-gu, Seoul, Republic of Korea.

14. On information and belief, Defendant Tianma Microelectronics Co., Ltd. is a Chinese corporation, organized and existing under the laws of China, with its principal place of business at No.88, Daxin Road, Tianma Building, Nanshan District, Shenzhen, China. This action arises out of that business.

15. On information and belief, Defendant Tianma Microelectronics (HONG KONG) Limited is a corporation organized and existing under the laws of Hong Kong, with a principal place of business at 20/F., Tower II, Admiralty Centre, 18 Harcourt Road, Admiralty, Hong Kong. This action arises out of that business.

16. On information and belief, Defendant Wuhan Tianma Microelectronics Co., Ltd., is a corporation organized and existing under the laws of China, with a principal place of business at No.8, Liufangyuan Road, East Lake Hi-tech Development Zone, Wuhan, Hubei, China. This action arises out of that business.

17. Defendants, collectively identified herein as "Tianma" are "in the market of displays" including "products based on passive, TFT-and LTPS-technology, as well as colour

filters and backlights.”<sup>17</sup> Tianma’s products are incorporated in small-to-medium-sized displays, such as those used in smartphones, tablets, wearables, automotive, and instrumentation. Tianma may be served at least pursuant to FED. R. CIV. P. 4(f)(2).

18. On information and belief, Tianma is in the business of providing TFT-LCD and OLED panels to consumers throughout the United States, including in this District. Specifically, Tianma provides and makes available for sale TFT-LCD and OLED display panels throughout the United States, including in this District.

19. Tianma makes, uses, sells, offers to sell, and/or imports the Accused Products (defined *infra*) in or into the United States thereby committing infringing acts under 35 U.S.C. § 271(a). For example, Tianma offers to sell and/or sells the Accused Products in the United States directly to their subsidiaries, sister companies, affiliates, and/or partners (e.g., Wistron InfoComm Technology America Corp, Balboa Water Group Inc., General Motors). *See* Tianma Microelectronics Co., Ltd. – Shipments to U.S. (Exhibit A); Tianma Microelectronics (HONG KONG) LIMITED – Shipments to U.S. (Exhibit B); Wuhan Tianma Microelectronics Co. Ltd. – Shipments to U.S. (Exhibit C).

20. Tianma also induces its affiliates, partners, and/or customers (such as Motorola Mobility LLC, Xiaomi Corporation, General Motors) to make, use, sell, offer to sell, and/or import Accused components and/or sub-system of the Accused Products in the United States, including in the State of Texas and this District, thereby committing infringing acts under 35 U.S.C. § 271(b).

21. As further explained herein, Tianma had notice of at least two of the Asserted Patents (defined *infra*) and its infringement thereof by no later than October 2021. Tianma undertook and continued its infringing actions despite an objectively high likelihood that it

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<sup>17</sup> Tianma Group, About Us, <https://perma.cc/YUF4-M598> (last visited May 27, 2025).

infringed these Asserted Patents, which have been duly issued by the USPTO, and are presumed valid.

### **NATURE OF THE ACTION, JURISDICTION, AND VENUE**

22. LG Display brings this action for patent infringement of United States Patent Nos. 8,416,166 (“166 Patent”); 8,736,801 (“801 Patent”); 10,175,803 (“803 Patent”); 10,444,924 (“924 Patent”); 10,499,493 (“493 Patent”); 10,869,388 (“388 Patent”); 11,251,394 (“394 Patent”) (the “Asserted Patents”) under the patent laws of the United States, 35 U.S.C. § 271 *et seq.*

23. LG Display and Tianma are direct competitors in the market of display panels. For example, in May 2025, both LG Display<sup>18</sup> and Tianma<sup>19</sup> had a strong presence at SID Display Week 2025 (a major international symposium, seminar, and exhibition focused on display technology hosted by Society for Information Display (SID)).

24. In 2024, global LCD automotive display panel shipments reached 232 million units; LG Display and Tianma are both major players in this sector of the panel display business.<sup>20</sup> From July 2022 through December 2024, LG Display and Tianma directly competed with each other for at least thirteen separate business opportunities to supply automotive display panels to certain customers. In six instances where LG Display secured the business by outbidding Tianma, but for Tianma’s participation (with its Accused Products), LG Display would have received higher sales prices for its automotive display products from these customers. Moreover, with respect to the

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<sup>18</sup> LG Display Targets Future Markets with World-Leading Technology at SID Display Week 2025, PR Newswire (May 13, 2025), <https://perma.cc/8EDS-Y7WX> (last visited June 6, 2024).

<sup>19</sup> Tianma Showcasing Wide Range of New Display Products and Prototype Technologies at Display Week 2025, Tianma (May 13, 2025), <https://perma.cc/VGA7-5MXC> (last visited June 6, 2024).

<sup>20</sup> Omdia, Global Automotive Display Panel Shipments Reach 232 Million Units in 2024, Fueled by China’s Market Influence, Business Wire (Mar. 18, 2025), <https://www.businesswire.com/news/home/20250318953786/en/Omdia-Global-Automotive-Display-Panel-Shipments-Reach-232-Million-Units-in-2024-Fueled-by-Chinas-Market-Influence> (last visited May 27, 2025).

seven business opportunities that LG Display lost out to Tianma (with its Accused Products), in the absence of Tianma's lower winning bids, LG Display would have secured those orders since LG Display was the only other bidder. LG Display has been harmed by these and Tianma's other uses of LG Display's patented technologies.

25. This Court has subject matter jurisdiction over this action pursuant to 28. U.S.C. §§ 1331 and 1338(a) because the action arises under the patent laws of the United States.

26. This Court has personal jurisdiction over Tianma in this action pursuant to due process and/or the Texas Long Arm Statute, by virtue of at least the substantial business Tianma conduct in this District, directly and/or through intermediaries.

27. This conduct includes but is not limited to: (1) having committed acts within the Eastern District of Texas giving rise to this action and having established minimum contacts with this forum such at the exercise of jurisdiction over Tianma would not offend traditional notions of fair play and substantial justice; (2) having directed activities to customers in the State of Texas and this District, solicited business in the State of Texas and this District, transacted business within the State of Texas and this District, and attempted to derive financial benefit from residents of the State of Texas and this District, including benefits directly related to the instant patent infringement causes of action set forth here; (3) having placed its products and services into the stream of commerce throughout the United States and having been actively engaged in transacting business in Texas and in this District; and (4) either individually or vicariously through and/or concert with its agents, distributors, importers, partners, customers, subsidiaries, sister companies, affiliates, and/or consumers; and/or in conjunction with third parties, having committed acts of infringement within Texas and in this District.

28. In addition, or in the alternative, this Court has personal jurisdiction over Tianma pursuant to Fed. R. Civ. P. 4(k)(2).

29. Tianma has placed and continues to place the Accused Products into the stream of commerce via established distribution channels comprising at least customers such as Motorola Mobility LLC, Xiaomi Corporation, and General Motors, for the sale of the Accused Products, with the knowledge and/or intent that the Accused Products are imported, used, offered for sale, sold, and continue to be sold in the United States and Texas, including in this District.

30. As an example, on information and belief, at least certain Chevrolet vehicles—such as the Traverse, Equinox, Equinox EV, and Blazer EV—incorporate an infringing LCD display panel manufactured and sold by Tianma.

31. On information and belief, Tianma designed and manufactured (and continues to manufacture) an LCD display panel for use in the Chevrolet Traverse vehicles.

32. The Chevrolet vehicles such as Chevrolet Traverse 2023-2024 models with Tianma's infringing LCD display panels were and continues to be widely sold in the United States and in this District as demonstrated in the following websites:

Vehicles Shop

77501 Pasadena, TX  
(2,050 miles)

Cash

Finance

Lease

Filters

Clear All

Net Price Payment

\$36,550 - \$58,904

Min

Max

Year

2025 (16,367)

2024 (85)

Vehicle

Bilzer EV (0,000)

Equinox EV (375)

Silverado EV (1,488)

Bilzer (793)

Camaro (7)

View More (18)

Model

LT (85)

Z71 (7)

Big (73)

Home > Search Inventory

Search by Vehicle, Dealership, VIN

85 Vehicle(s)

Distance (Near to Far)

Electric

SUV

Truck

Performance

2024

Traverse

AVAILABLE NOW

2024 Traverse Z71, AWD

MSRP: \$53,320 †

KEATING CHEVROLET (644 mi.)

Dealer Price After Offers

Contact Dealer

VIN: 1N6EYKST6D037630

AVAILABLE NOW

2024 Traverse Z71, AWD

MSRP: \$54,050 †

KEATING CHEVROLET (644 mi.)

Dealer Price After Offers

Contact Dealer

VIN: 1N6EYKST6D037630

AVAILABLE NOW

2024 Traverse LS, FWD

MSRP: \$44,780 †

NORTHSTAR CHEVROLET CASTROVILLE (220 mi.)

Dealer Price After Offers

\$44,780

VIN: 1N6EYKST6D037630

IN TRANSIT

2024 Traverse LT, FWD

MSRP: \$43,430 †

BIG HORN CHEVROLET (630 mi.)

Dealer Price After Offers

\$42,430

VIN: 1N6EYKST6D037630

AVAILABLE NOW

2024 Traverse LT, FWD

MSRP: \$51,595 †

WADE CHEVROLET (644 mi.)

Dealer Price After Offers

\$51,095

VIN: 1N6EYKST6D037630

IN TRANSIT

2024 Traverse Z71, AWD

MSRP: \$52,590 †

CENTRAL CHEVROLET COMPANY, INC. (618 mi.)

Dealer Price After Offers

AVAILABLE NOW

2024 Traverse LT, FWD

MSRP: \$44,380 †

DAVIS MOORE CHEVROLET, INC. (644 mi.)

Dealer Price After Offers

AVAILABLE NOW

2024 Traverse 1FL, FWD

MSRP: \$39,495 †

DON HATTAN CHEVROLET, INC. (673 mi.)

Dealer Price After Offers

AVAILABLE NOW

2024 Traverse Z71, AWD

MSRP: \$52,080 †

MCKISLEY CHEVROLET CORPORATION (598 mi.)

Dealer Price After Offers

AVAILABLE NOW

2024 Traverse RS, AWD

MSRP: \$57,770 †

HENRY MARTENS CHEVROLET BUICK GMC (645 mi.)

Dealer Price After Offers

<https://perma.cc/TXN3-8RKQ>

- 9 -

Vehicles

Shop

8

Home > Search Inventory > 2024 Traverse LS FWD

Favorites 0

Pricing and fee information provided by:  
**NORTH PARK CHEVROLET CASTROVILLE**

[Dealership Information](#)

**2024 Traverse · LS FWD** (77501 - Pasadena, TX)

VIN: 1GNEREKS2RJ221900 · Stock: VJ221900 · AVAILABLE NOW

[View Window Sticker](#) [View Standard Equipment](#)

Exterior

Mosaic Black Metallic

Interior

Jet Black, Premium cloth ...

Dealer Images ☐ Manufacturer Images

Engine

2.5L Turbo engine

Transmission

8-Speed A/T

Seats

8 Seater

**Key Installed Options**

▪ Midnight/Sport Edition:  
\$1,785

**Value Your Trade**  
Get an estimated value on your trade-in vehicle.  
[Enter Your Vehicle](#)

**Apply Incentives & My Rewards**  
Add incentives, special offers and My Rewards to your deal.  
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Interested in learning more? Request a test drive or sales  
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\$43,478.75 - Cash [Edit](#)

\$620.48/mo. - Finance [Edit](#)

\$678.21/mo. - Lease [Edit](#)

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[Request Details](#)

<https://perma.cc/CG4A-KE45>

- 10 -

Vehicles Shop

Home > Search Inventory > 2024 Traverse LS FWD

Prizing and fee information provided by  
**NORTH PARK CHEVROLET CASTROVILLE**

2024 Traverse LS FWD (77501 - Pasadena, TX)  
VIN: 1GN1REK52R2279000 Stock: 102279000 AVAILABLE NOW  
[View Window Sticker](#) [View Standard Equipment](#)

Dealer Information


Financing Options:

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- \$620.48/mo. - Finance [Edit](#)
- \$678.21/mo. - Lease [Edit](#)

Value Your Trade [Enter Your Vehicle](#)

Apply Incentives & My Rewards [See Offers](#)

[Request Details](#)



Exterior: Metallic Black Metallic Interior: Jet Black, Premium cloth ...

Dealer Images Manufacturer Images



<https://perma.cc/CG4A-KE45>



**Best-in-class\* standard 17.7-Inch diagonal color touch-screen**  
Among three-row mid-SUVs

<https://www.chevrolet.com/suvs/previous-year/traverse>

## Family-Friendly Features of the 2024 Chevy Traverse

Jul 23, 2024

The newest Chevrolet Traverse is the first in the third generation of the model. It makes its debut with a bold exterior design, gorgeous cabin, and huge [17.7-inch infotainment screen](#).

Ready to learn more about what this midsize SUV has to offer? Read on and then visit Burns Chevrolet of Rock Hill to get behind the wheel of a Chevy Traverse near you!

## Entertainment and Connectivity Options

The interior of the new Chevy Traverse is packed with tech and connectivity features. It's outfitted with a [best-in-class 17.7-inch color touchscreen](#). That's more than twice as large as the largest screen available in the previous Traverse! Other tech features include available wireless phone charging and Wi-Fi hotspot, while six USB ports are standard. You'll also enjoy the peace of mind that comes with OnStar connectivity.

<https://www.burnschevy Cadillac.com/blogs/3610/2024-chevy-traverse/family-friendly-features-of-the-2024-chevy-traverse#:~:text=The%20interior%20of%20the%20new,available%20in%20the%20previous%20Traverse>

### Safety Features

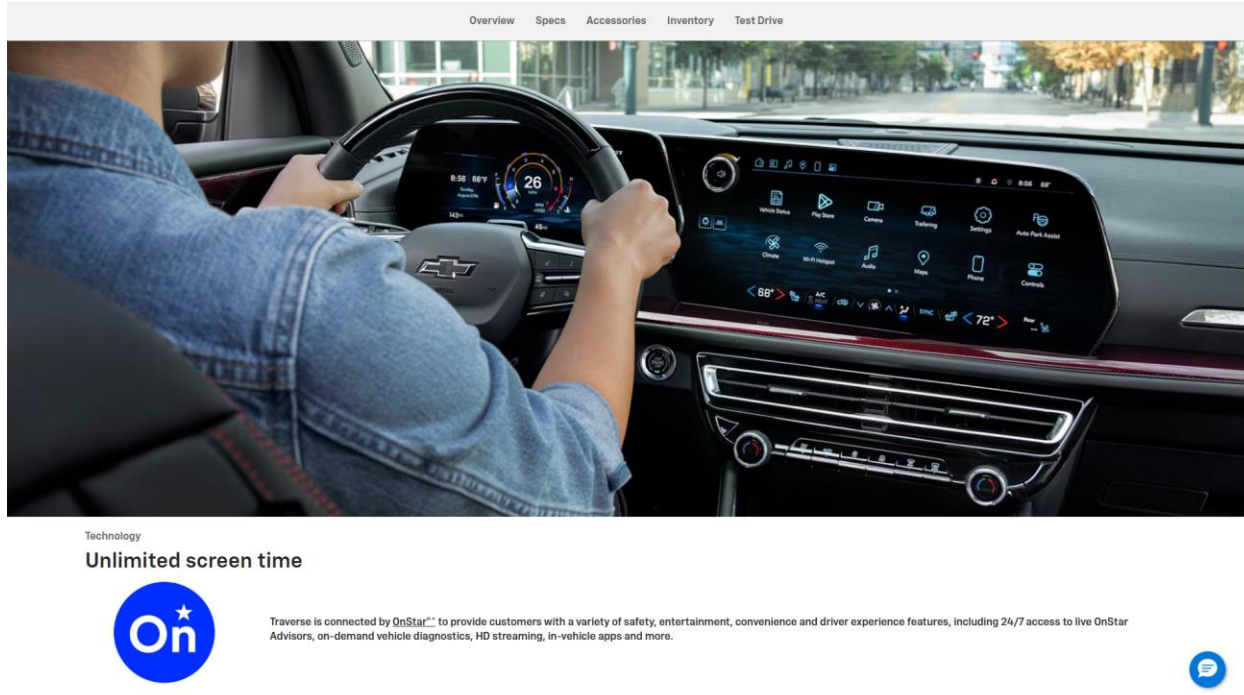
Chevy understands how important safety and driver-assistance features are to today's drivers when selecting a new vehicle, so the 2023 Traverse is packed with standard and available features. Every trim has an advanced airbag system, a following distance indicator, front pedestrian braking, lane-keep assist with lane departure warning, Buckle to Drive, and forward collision alert. Automatic emergency braking, Teen Driver, and a rear vision camera are also standard on the Traverse.

Available features include a rear cross-traffic alert, a lane change alert with a side blind zone alert, a safety alert seat, a rear pedestrian alert, an HD surround vision camera, and an enhanced automatic emergency braking system.



<https://www.allenturnerchevrolet.com/2023-chevy-traverse/>

33. On information and belief, the Chevrolet Traverse vehicles designed and sold by General Motors Company, with Tianma's infringing LCD display panels, continue to be widely sold and distributed in Texas and in this District. On information and belief, the Chevrolet Traverse can also be purchased in the United States and in this District through at least the following dealerships: Petlier Chevrolet (2700 Wsw Loop 323, Tyler TX 75711), Bill Dickason Chevrolet (1110 E Broadway Ave, Gladewater, TX 75647), Maverick Chevrolet (4801 E End Blvd S 4801 E End Blvd S , Marshall TX 75672), Classic Buick GMC Beaumont (3865 Eastex Freeway Beaumont, TX 77706), DOW Autoplex (1313 S Pacific St , Mineola TX 75773), Hall Chevrolet GMC (385 W. Dallas St 385 W Dallas St , Canton TX 75103), Phippen Motor Company (1300 West Panola Street , Carthage TX 75633), and Peters Chevrolet Buick (4181 Hwy 259 North, Longview TX 75605).



Technology

Unlimited screen time



Traverse is connected by OnStar<sup>®</sup> to provide customers with a variety of safety, entertainment, convenience and driver experience features, including 24/7 access to live OnStar Advisors, on-demand vehicle diagnostics, HD streaming, in-vehicle apps and more.




<https://www.chevrolet.com/suvs/traverse?x-modelyear=2025&x-carline=traverse&x-bodystyle=traverse&x-provider-id=560803>

34. As an additional example, the Moto G Stylus smartphone utilizes an infringing Tianma LCD display panel. Tianma designed and manufactured (and continues to manufacture) an LCD display panel for use in the Moto G Stylus smartphone.

35. The Moto G Stylus smartphone incorporating Tianma's infringing LCD display panel was and continues to be widely sold and distributed in Texas and in this District by Motorola Mobility LLC. For example, the Moto G Stylus smartphone can be purchased through Best Buy (4210 Saint Michael Dr., Texarkana, TX 75503).

36. The Moto G Stylus smartphone can also be purchased in the United States and in this District through at least the following website:

Cell Phones & Accessories » Cell Phones



Motorola Moto G Stylus | 2022 | 2-Day battery | Unlocked | Made for US by Motorola | 6/128GB | 50MP Camera | Twilight Blue

Visit the Motorola Store

4.2 ★★★★★ (2,868) | Search this page

2 Price Changes

\$116.95

Or \$11.75/mo (12 mo). Select from 1 plan

Thank you for being a Prime Member. Pay \$116.95 \$0.00 for this order; get a \$200 Amazon Gift Card upon approval for the Amazon Business Prime Card. Terms apply. Learn more

Only 2 left in stock - order soon.

Color: Blue

Style: Unlocked Smartphone

Brand	Motorola
Operating System	Android
Ram Memory	6 GB
Installed Size	A-Series Dual-Core A4-3420
CPU Model	2
CPU Speed	See more

See more

About this item

- Stylus Pen: Use a push-open stylus to sketch, write notes, and edit

Buy used: \$116.95

FREE delivery June 23 - 25 to New York. Details

Or fastest delivery Monday, June 16. Order within 10 hrs 36 mins. Details

Arrives after Father's Day. Need a gift sooner? Send an Amazon Gift Card instantly by email or text message.

Used: Very Good | Details Sold by CTI Wireless

Only 2 left in stock - order soon.

Add to Cart

Add to List

Other sellers on Amazon

Used (4) from \$116.95 & FREE Shipping

Motorola Razr Ultra 2025 |... \$1,299.99 prime Shop now

Ask Rufus

Does it have expandable storage? Can the stylus be stored inside? Is this phone water resistant?

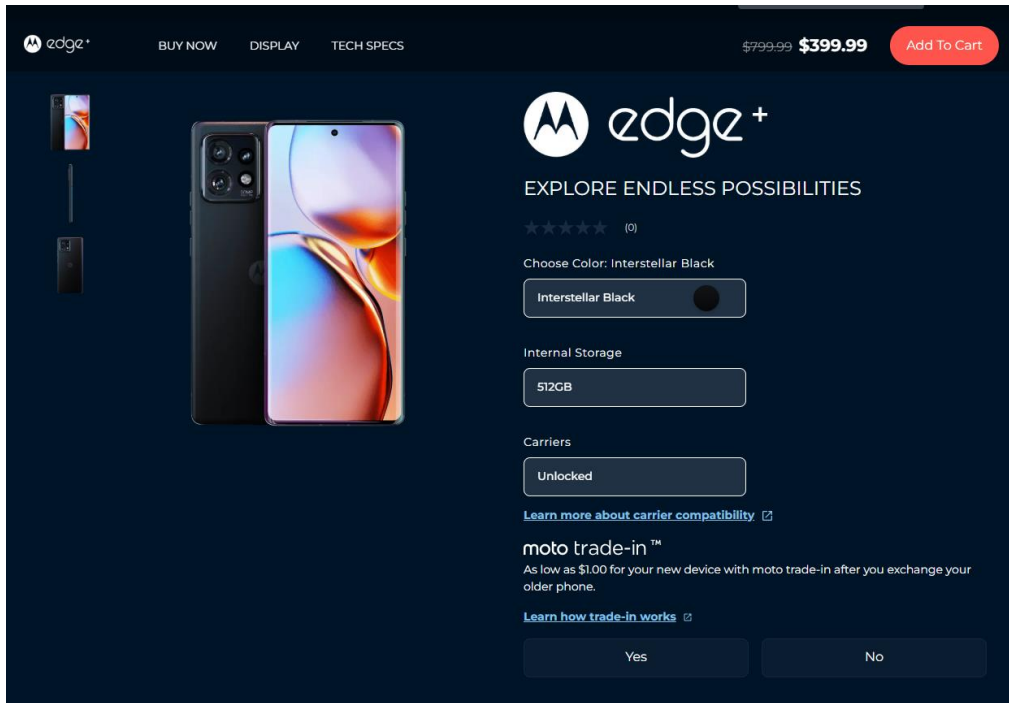
Ask something else

<https://www.amazon.com/Stylus-battery-Unlocked-Motorola-Twilight/dp/B09PFC2DVD?th=1>  
(Amazon)

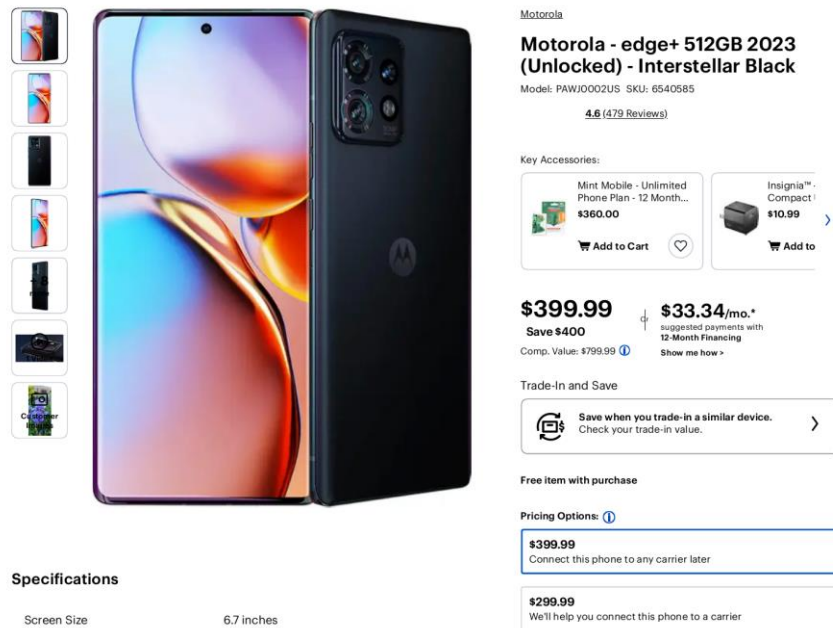
37. For example, the Motorola edge+ smartphone utilizes an infringing Tianma OLED display panel. Tianma designed and manufactured (and continues to manufacture) an OLED display panel for use in the Motorola edge+ smartphone.

38. The Motorola edge+ smartphone incorporating Tianma's infringing OLED display panel was and continues to be widely sold and distributed in Texas and in this District by Motorola Mobility LLC. For example, the Motorola edge+ smartphone can be purchased through Best Buy (4210 Saint Michael Dr., Texarkana, TX 75503).

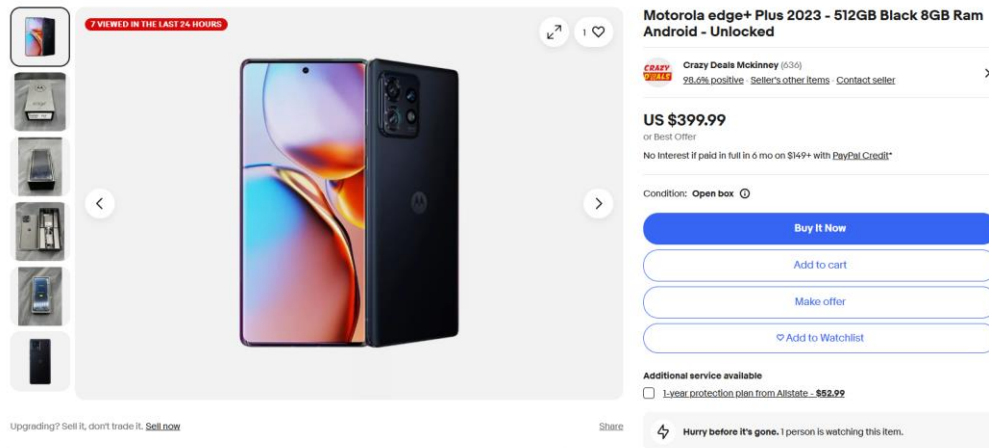
39. The Motorola edge+ smartphone can also be purchased in the United States and in this District through at least the following websites:



<https://perma.cc/CKS6-X9JU> (Motorola)



<https://perma.cc/FTA6-YPK9> (Best Buy)




<https://perma.cc/7LUG-8654> (EBay)

40. As another example, the Xiaomi 13T smartphone utilizes an infringing Tianma OLED display panel. Tianma designed and manufactured (and continues to manufacture) an OLED display panel for use in the Xiaomi 13T smartphone.

41. The Xiaomi 13T smartphone incorporating Tianma's infringing OLED display panel was and continues to be widely sold and distributed in Texas and in this District. The Xiaomi 13T smartphone can also be purchased in the United States and in this District through at least the following websites:

Cell Phones & Accessories • Cell Phones





**Xiaomi 13T 5G + 4G LTE (for tmobile Mint Tello Global) (256Gb + 12Gb) Global Unlocked Worldwide 50MP Triple Pro Camera 6.36 144MHz (Meadow Green)**

Visit the [Xiaomi Store](#)  
4.0 ★★★★★ (74) | Search this page

**\$419<sup>99</sup>**  
Or **\$30.54**/mo (18 mo). Select from 1 plan  
✓prime One-Day FREE Returns

Meet Prime Visa: Get a \$100 Amazon Gift Card upon approval.

Color: **Meadow Green**

**Purchase options and add-ons**

**Trade-in and save**  
Save up to \$785.00 on your new device with Amazon.com Gift Card credit when you trade in your old device

[Start your trade-in](#)

**Brand** Xiaomi  
**Operating System** MIUI 14, android 13  
**Ram Memory Installed Size** 12 GB  
**CPU Model** Others

**\$419<sup>99</sup>**  
✓prime One-Day FREE Returns  
FREE delivery Tomorrow, April 26. Order within 4 hrs 22 mins  
Shorter shipping distance  
Deliver to Brittany - New York 10065

**Only 5 left in stock - order soon.**

Quantity: 1

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**Xiaomi 13T 5G 256GB 12GB RAM Dual Sim (Global Model) GSM Factory Unlocked (Meadow Green)**

★★★★★ (410) | 10000+

**About this item**

- Experience blazing-fast 5G connectivity with support for NSA and SA networks, covering a wide range of frequency bands for reliable performance. This unlocked global model is compatible with T-Mobile, Mint, and Tello networks in the US, and this all GSM carriers worldwide.
- Capture stunning photos and videos with the Leica-powered camera system, featuring a 50MP main camera, 50MP telephoto camera, and 50MP ultra-wide camera.
- Enjoy a vibrant and smooth viewing experience on the 6.67-inch FHD+ AMOLED display, with up to 144Hz refresh rate and Corning Gorilla Glass 5 protection...

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**At a glance**

Screen size 6.67 in	HD capacity 256 GB	Ram memory 12 GB
Features Water-Resistant	Weight 15 oz	Rear cam mp 50 MP

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☐ I want shipping & delivery savings with Walmart+. You get 30 days free! Choose a plan at checkout.

**Shipping** Arrives Apr 29  
**Pickup** Not available  
**Delivery** Not available

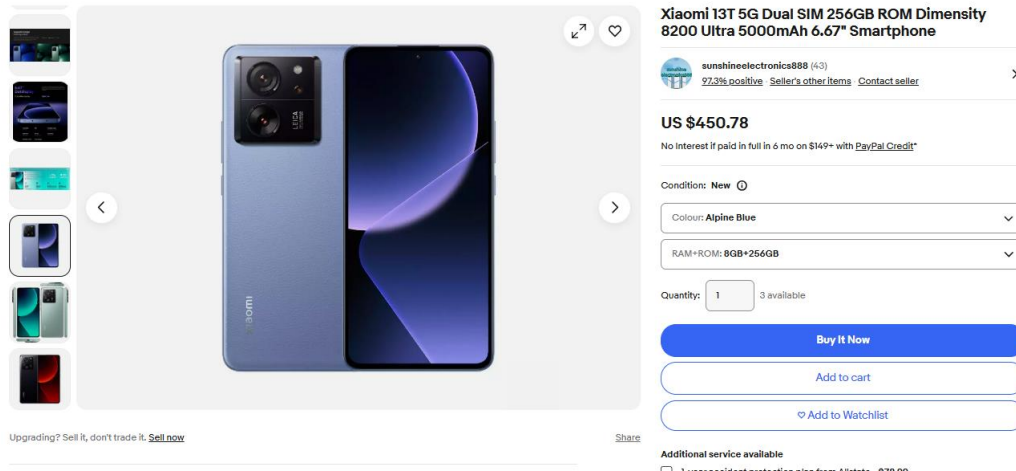
**1999 K-Si NW** **Choice**  
Arrives by Tue, Apr 29  
**Only 1 left**

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<https://perma.cc/5DN9-W6SS> (Walmart)



<https://perma.cc/TN7K-M2FR> (Ebay)

42. Tianma has, directly or through its distribution network, purposefully and voluntarily placed the Accused Products in the stream of commerce, knowing and expecting them to be purchased and used by consumers in the United States, including in this District.

43. On information and belief, Tianma has also derived substantial revenue from infringing acts in this District, including from the sale and use of the Accused Products.

44. Venue is proper in this District pursuant to 28 U.S.C. §§ 1391(c)(3). All three Tianma entities are organized under the laws of a foreign jurisdiction (i.e., China / Hong Kong) and are not residents of the United States. Thus, Tianma may be sued in any judicial district.

### **The Parties' Protracted Negotiation History**

45. In April 2001, LG Display and NEC Corp. ("NEC") entered into a patent cross-license agreement ("2001 Agreement"). As part of the 2001 Agreement, NEC LCD display products were licensed under LG Display's patents.

46. On February 25, 2011, NEC, NEC LCD Technologies, Ltd., AVIC International Holding Corporation ("AVIC"), and Tianma announced a capital alliance to strengthen their small

and midsize liquid crystal panel business.<sup>21</sup> NEC LCD Technologies, Ltd. was set to become a joint venture primarily controlled by AVIC and managed by Tianma and designed to combine NEC LCD Technologies, Ltd.'s advanced technology with Tianma's production capacity, enabling the companies to deliver competitively priced industrial LCD panels to global markets.<sup>22</sup>

47. On information and belief, Tianma had knowledge of LG Display's patent portfolio especially regarding TFT-LCD technologies as a result of this joint venture due to the 2001 Agreement between NEC and LG Display.

48. In July 2011, NEC sold a 70% ownership stake to AVIC, which is the parent company of Tianma. Following this transaction, NLT Technologies, Ltd. ("NLT") (previously known as NEC LCD Technologies, Ltd.) was established with AVIC holding a 70% stake and NEC retaining a 30% stake.<sup>23</sup>

49. Following its establishment, NLT requested LG Display to grant a license of LG Display's patents regarding TFT-LCD technologies to both NLT and Tianma, based on the 2001 Agreement.

50. From November 2011 to June 2015, LG Display and NLT held four in-person meetings in Korea and Japan to negotiate a patent licensing agreement.

51. During these negotiations, NLT proposed to LG Display to have one or two agreements including both NLT and Tianma. Both parties agreed to first discuss an agreement between LG Display and Tianma, based on Tianma's control of NLT.

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<sup>21</sup> The NEC Group and AVIC International Group Agree to a Capital Alliance to Strengthen the Small and Midsize Liquid Crystal Panel Business (Feb. 25, 2011), <https://perma.cc/V8V5-Q7XZ> (last visited May 28, 2025).

<sup>22</sup> *Id.*

<sup>23</sup> Under the terms of the 2001 Agreement, the license granted by LG Display to NEC did not transfer to NLT since NLT was no longer a "subsidiary" of NEC after the change in ownership.

52. In July, 2015, LG Display traveled to Shanghai, China, for the first meeting between LG Display and Tianma to negotiate a cross-licensing agreement. On behalf of Tianma, Mr. Jason Huang, Senior Director of IP Department attended the meeting, and the Parties agreed to hold additional technical and business meetings to eventually reach an agreement.

53. On October 15, 2015, LG Display sent a letter to Tianma regarding products made, used, imported, or sold by Tianma that incorporate and/or use features and functions covered by LG Display's patents related to TFT-LCD technologies. The letter was sent with 11 claim charts for U.S. Patents.

54. Subsequent technical and business meetings between the Parties occurred on January 8, April 4, July 7, and August 23, 2016. However, progress came to a halt after Mr. Huang abruptly resigned from Tianma.

55. Mr. Huang's successor, Ms. Kiyono Yoshifumi (also known as Ms. Liu Di), claimed to have no information regarding the prior history of negotiations between Tianma and LG Display so requested to restart the negotiation process from the beginning—including a fresh review of all previously discussed technical materials.

56. Despite the significant expenditure of resources and time over two years, LG Display agreed to accommodate Ms. Di's request in hopes of continuing good faith negotiations with Tianma.

57. On July 14, 2017, LG Display sent another set of six claim charts, including evidence that Tianma was making, using, importing, or selling products that incorporate and/or use features and functions covered by LG Display's patents related to TFT-LCD technologies.

58. On September 4, 2017, LG Display provided Tianma with additional examples of Tianma's ongoing infringement, supplementing the list of patents previously identified in claim

charts sent by LG Display. This notice specifically addressed the infringement of LG Display's patents covering TFT-LCD, AIT, and one drop fill ("ODF") technologies. The notice informed Tianma of the infringement of 46 additional U.S. Patents.

59. Throughout 2017, LG Display and Tianma held several technical and business meetings, mostly in China.

60. Around March 2018, LG Display was notified that Ms. Di resigned from Tianma, and negotiations were suspended once again. Since the last correspondence from Ms. Di on December 5, 2017, LG Display's repeated attempts to amicably resume negotiations with Tianma went unanswered.

61. On October 16, 2020, in order to restart discussions with Tianma, LG Display sent a letter to Mr. Yong Mao Sun, CEO of Tianma, regarding Tianma's ongoing infringement of LG Display's patents. That letter included an exemplary claim chart for U.S. Patent No. 10,649,575 against Tianma's display product incorporated into the Xiaomi Redmi Note8 smartphone.

62. On November 5, 2020, negotiations restarted with Tianma's response to LG Display's October 16, 2020 letter.

63. During the first half of 2021, multiple business meetings took place. Throughout these negotiations, Tianma acknowledged the need to obtain a license from LG Display; however, Tianma failed to present any specific counteroffer in light of its prior commitments to do so. As a result, the negotiations reached an impasse.

64. In June 2021, another purported change in Tianma's leadership caused communications to stall. Despite the years of prior negotiations history between the Parties, Tianma requested LG Display to provide new evidence of its infringing activities for the purposes of reporting to their new management.

65. On July 22, 2021, LG Display sent a letter to the new chairman of Tianma, which included a copy of LG Display's October 16, 2020 letter, providing additional background of the Parties' unproductive negotiations.

66. In response to Tianma's request, on October 28, 2021, LG Display presented claim charts to Tianma that identified further instances of Tianma's ongoing infringement. The following day, LG Display shared these claim charts, which supplemented the list of patents previously identified in earlier notices. The claim chart included Asserted Patents ('803 and '924 Patents). In particular, LG Display's notice addressed the infringement of its patents related to TFT-LCD and AIT technologies.

67. On October 29, 2021, LG Display sent Tianma an additional notice identifying a comprehensive list of over 150 patents covering Tianma's ongoing infringement. This notice addressed the infringement of LG Display's patents related to LCD, AIT, ODF, and OLED technologies, including Asserted Patents ('493 and '388 Patents). The notice further supplemented LG Display's previous communications and provided Tianma with detailed information regarding the scope of its alleged infringement across a broad range of LG Display's patented technologies.

68. Both Parties agreed in writing to a timetable of technical meetings that would ultimately lead to the execution of an agreement. Technical meetings were held during the latter half of 2021, during which time both Parties presented claim charts and provided responses to each other's charts.

69. In February 2022, Tianma notified LG Display of a delay in the negotiations due to other business issues.

70. Negotiations did not restart until nearly a year thereafter. Between February 2023 and February 2024, fourteen meetings—both virtual and face-to-face (in China)—were held.

Negotiations came to a halt when, at the February 2024 meeting, Tianma refused to provide a counteroffer that was promised at the beginning of negotiations.

71. No further communications occurred until, in August 2024, Tianma sent a warning letter to LG Display's China office ("LGDCA") regarding the alleged need for LGDCA to obtain a patent license from Tianma. In response to Tianma's letter, LG Display inquired whether Tianma wished to reinstate licensing discussions. Tianma promised a formal reply to LG Display's offer to restart negotiations but has yet to provide a response after more than nine months has passed.

72. For nearly a decade, LG Display relentlessly pursued negotiations with Tianma in an effort to amicably enter into a patent license agreement covering Tianma's past and ongoing infringing activities. LG Display patiently accommodated Tianma's constant delays, multiple changes in personnel, and pattern of broken promises. Nearly all of the in-person meetings required members of LG Display to travel to China to meet with Tianma.

73. During this time, LG Display informed Tianma that it was infringing at least 237 U.S. patents (including some of the Asserted Patents defined *infra*) and provided claim charts for many of these patents.

74. Despite LG Display's persistent and proactive attempts to resolve the matter, Tianma consistently obstructed progress through a deliberate pattern of delay, outright refusal to accept LG Display's reasonable offers or to provide any concrete counteroffers—even as Tianma openly acknowledged the necessity of obtaining a license to LG Display's patents.

75. Tianma's continued bad faith conduct left LG Display with no viable path to resolution other than this lawsuit.

76. Consequently, LG Display files this action to protect its intellectual property rights. Even today, Tianma continues to make, use, sell, and/or offer for sale the Accused Products with

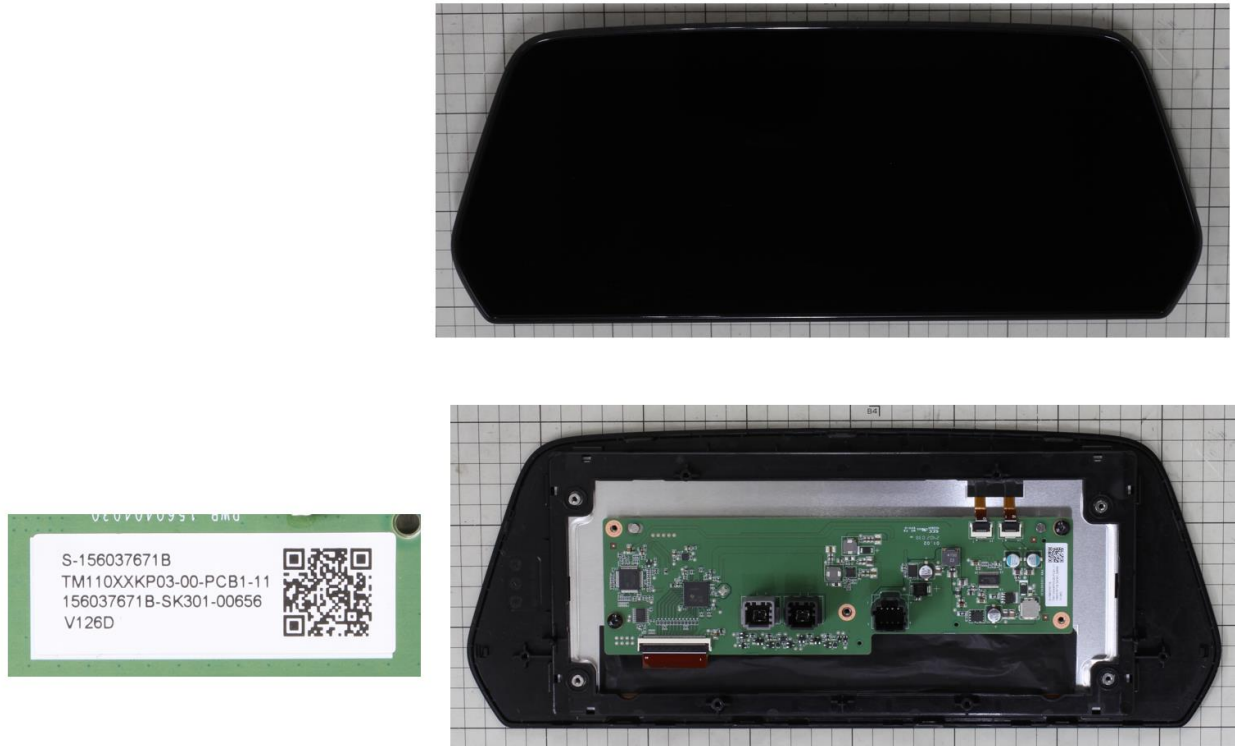
LG Display's technology without a license while also continuing to work with its affiliated partners and customers to make, use, sell, and/or offer for sale the Accused Products with LG Display's patented technology.

### **THE ACCUSED PRODUCTS**

77. "Accused Products" collectively refers to display products identified below, without limitation, as the "Accused Auto LCD Tianma Products," "Accused Mobile LCD Tianma Products," and "Accused Mobile OLED Tianma Products."

78. "Accused Auto LCD Tianma Products" collectively refers to "Accused '166 Tianma Products" and "Accused '801 Tianma Products."

79. The Accused Auto LCD Tianma Products are LCD displays that are used, made, sold, offered for sale, or imported, directly and/or indirectly, by Tianma, including LCD displays incorporated into automobiles—such as Chevrolet vehicles (Traverse, Equinox, Equinox EV, and Blazer EV). The Accused Auto LCD Tianma Products infringe (directly and/or indirectly) at least claim 1 of the '166 Patent and claim 1 of the '801 Patent. LG Display reserves the right to discover and pursue any additional infringing LCD display panels that infringe any of the '166 Patent and/or '801 Patent claims. For the avoidance of doubt, the Accused Auto LCD Tianma Products are identified to describe Tianma's infringement and in no way limit the discovery and infringement allegations against Tianma concerning other LCD display panels that incorporate the same or reasonably similar features. The following images show an exemplary product, Tianma's 11" LCD display panel, which is used in the Equinox EV driver information cluster.



80. “Accused Mobile LCD Tianma Products” collectively refers to “Accused ’924 Tianma Products” and “Accused ’803 Tianma Products.”

81. The Accused Mobile LCD Tianma Products are LCD display panels that are used, made, sold, offered for sale, or imported, directly and/or indirectly, by Tianma, including LCD displays incorporated into mobile products—such as Tianma Panel ID 678FYMM01 incorporated into the Moto G Stylus smartphone. The Accused Mobile LCD Tianma Products infringe (directly and/or indirectly) at least claim 1 of the ’924 Patent and claim 1 of the ’803 Patent. LG Display reserves the right to discover and pursue any additional infringing LCD display panels that infringe any of the ’924 Patent and/or the ’803 Patent claims. For the avoidance of doubt, the Accused Mobile LCD Tianma Products are identified to describe Tianma's infringement and in no way limit the discovery and infringement allegations against Tianma concerning other LCD display panels that incorporate the same or reasonably similar features.

SET BoxSET

Display module  
separated from  
SET

Display moduleDisplay panel

(Flipped image of back view)

82. “Accused Mobile OLED Tianma Products” collectively refers to “Accused ’493 Tianma Products,” “Accused ’394 Tianma Products,” and “Accused ’388 Tianma Products.”

83. The Accused '493 Tianma Products and Accused '394 Tianma Products are OLED display panels that are used, made, sold, offered for sale, or imported, directly and/or indirectly, by Tianma, including OLED display panels incorporated into mobile products—such as TA067FVWK15-01-MRF3-00 incorporated into the Motorola edge+ smartphone.



84. The Accused '388 Tianma Products are OLED display panels that are used, made, sold, offered for sale, or imported, directly and/or indirectly, by Tianma, including OLED display

panels incorporated into mobile products—such as TA067FVWK15-15-MRF1-00 incorporated into the Xiaomi 13T smartphone.



85. The Accused Mobile OLED Tianma Products infringe (directly and/or indirectly) at least claim 9 of the '493 Patent, claim 12 of the '388 Patent, and claim 1 of the '394 Patent. LG Display reserves the right to discover and pursue any additional infringing OLED display panels

that infringe any of the '493 Patent, '388 Patent, and/or '394 Patent claims. For the avoidance of doubt, the Accused Mobile OLED Tianma Products are identified to describe Tianma's infringement and in no way limit the discovery and infringement allegations against Tianma concerning other OLED display panels that incorporate the same or reasonably similar features.

**COUNT 1 – INFRINGEMENT OF U.S. PATENT NO. 8,416,166**

86. LG Display incorporates all prior paragraphs here by reference.

87. U.S. Patent No. 8,416,166 (the "'166 Patent") duly issued on April 9, 2013, and is entitled Liquid Crystal Display Device.

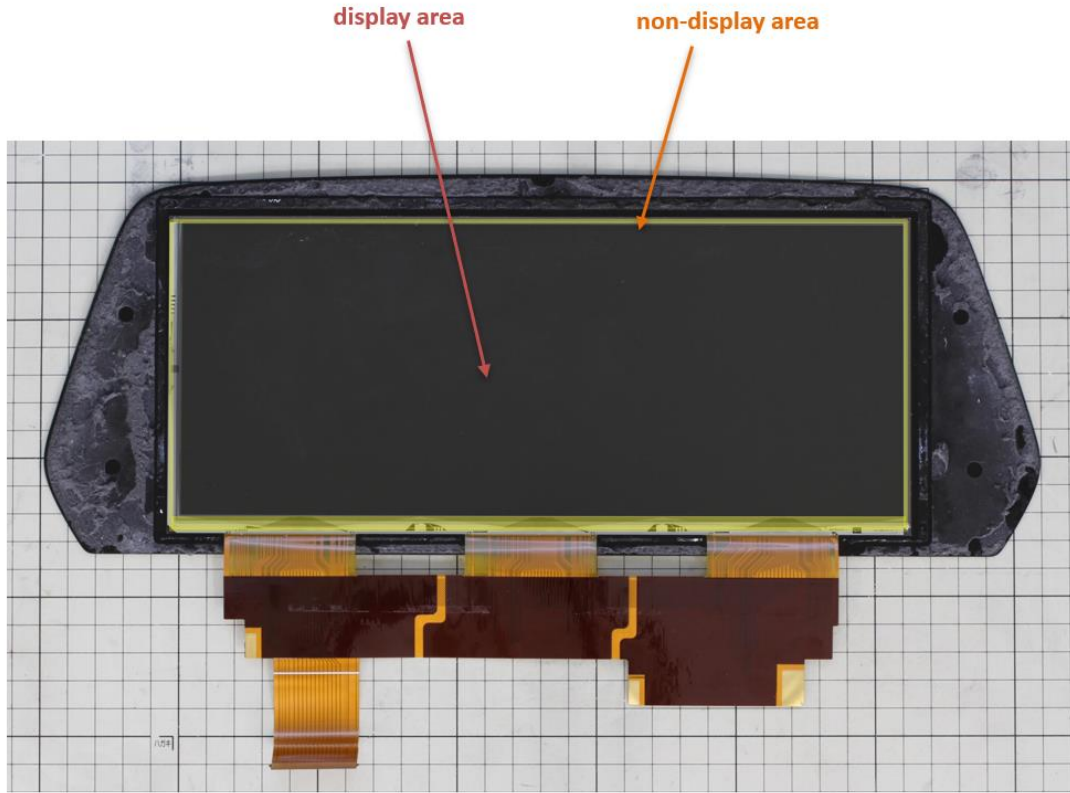
88. The '166 Patent claims priority to KR 10-2008-0133956, filed on December 24, 2008.

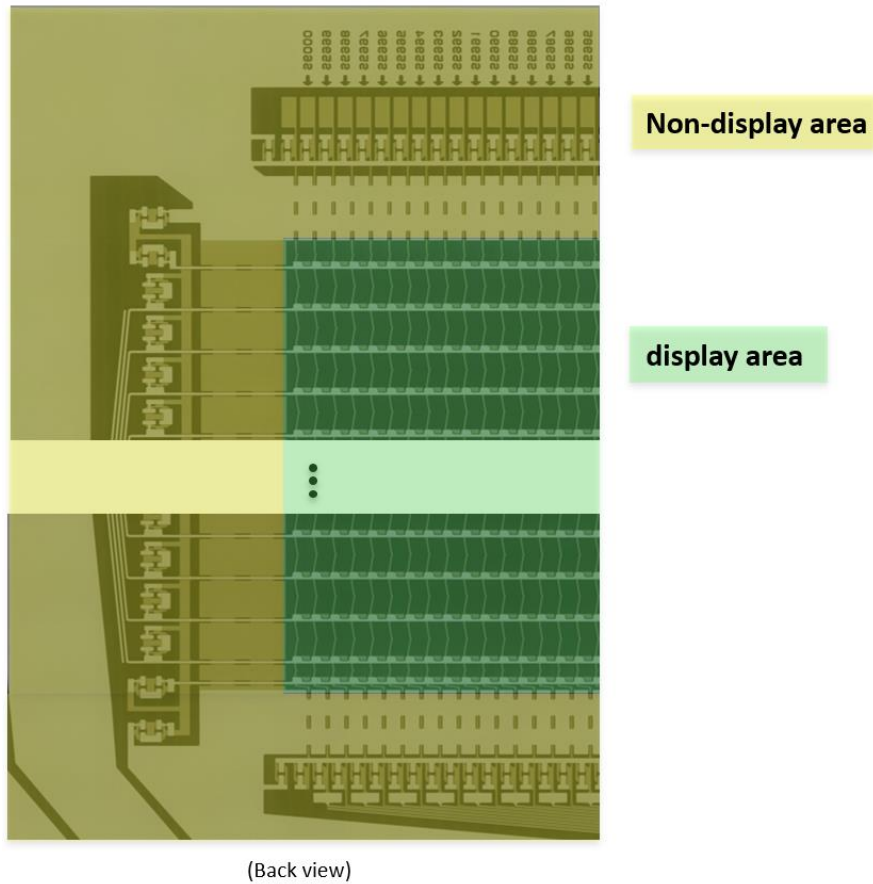
89. LG Display is the owner by assignment of the '166 Patent and possesses all rights under the '166 Patent, including the exclusive right to recover for past and future infringement.

90. Tianma has directly infringed at least claim 1 of the '166 Patent, literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its LCD display panels, including the Accused Auto LCD Tianma Products.

91. Each of the Accused '166 Tianma Products is or includes a liquid crystal display device having a display area and a non-display area.

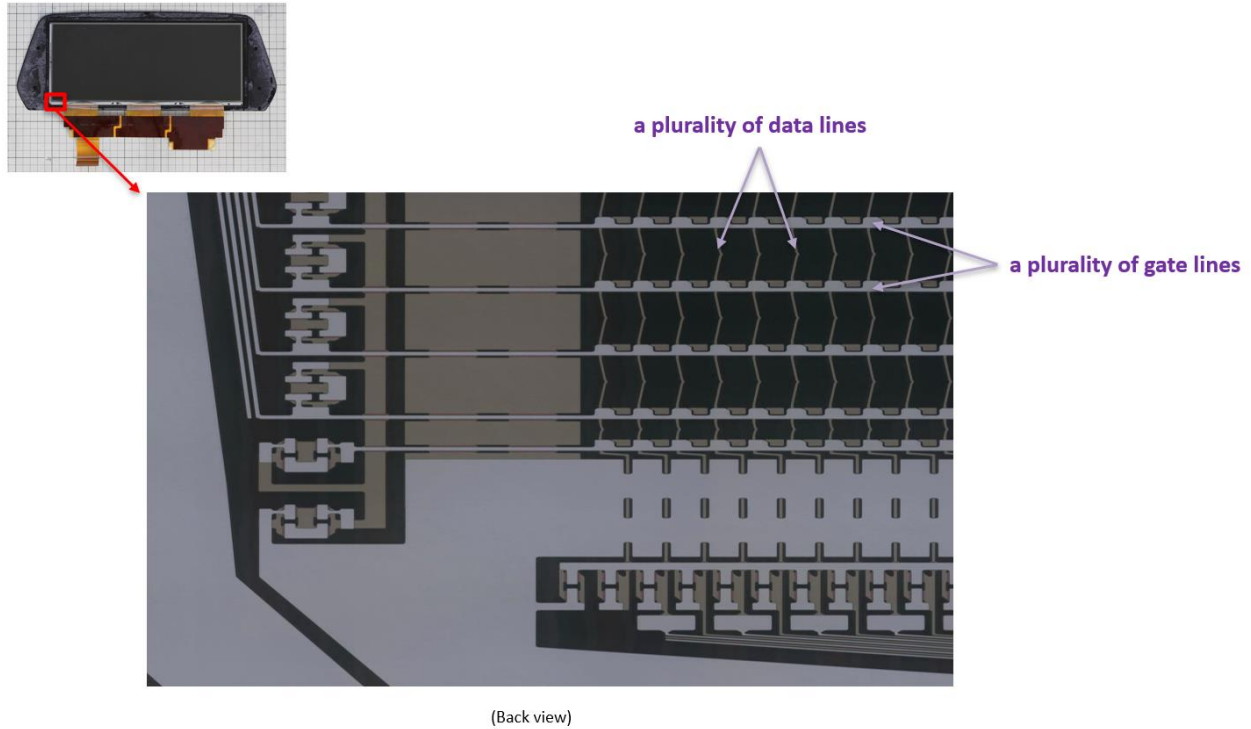
92. For example, Tianma's 11" LCD display panel in the Equinox EV driver information cluster is or includes a liquid crystal display device having a display area and a non-display area.





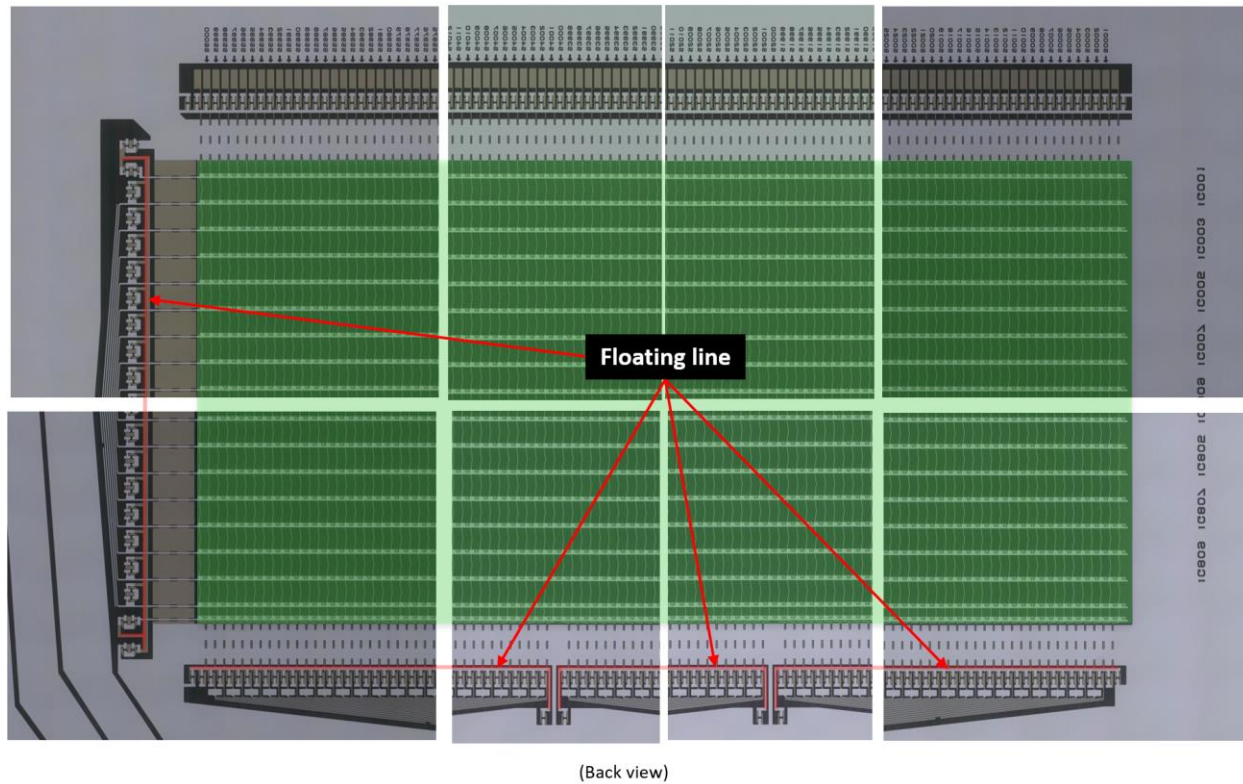
93. Each of the Accused '166 Tianma Products includes a plurality of gate lines and a plurality of data lines arranged to cross each other on the display area.

94. For example, Tianma's 11" LCD display panel in the Equinox EV driver information cluster includes a plurality of gate lines and a plurality of data lines arranged to cross each other on the display area.



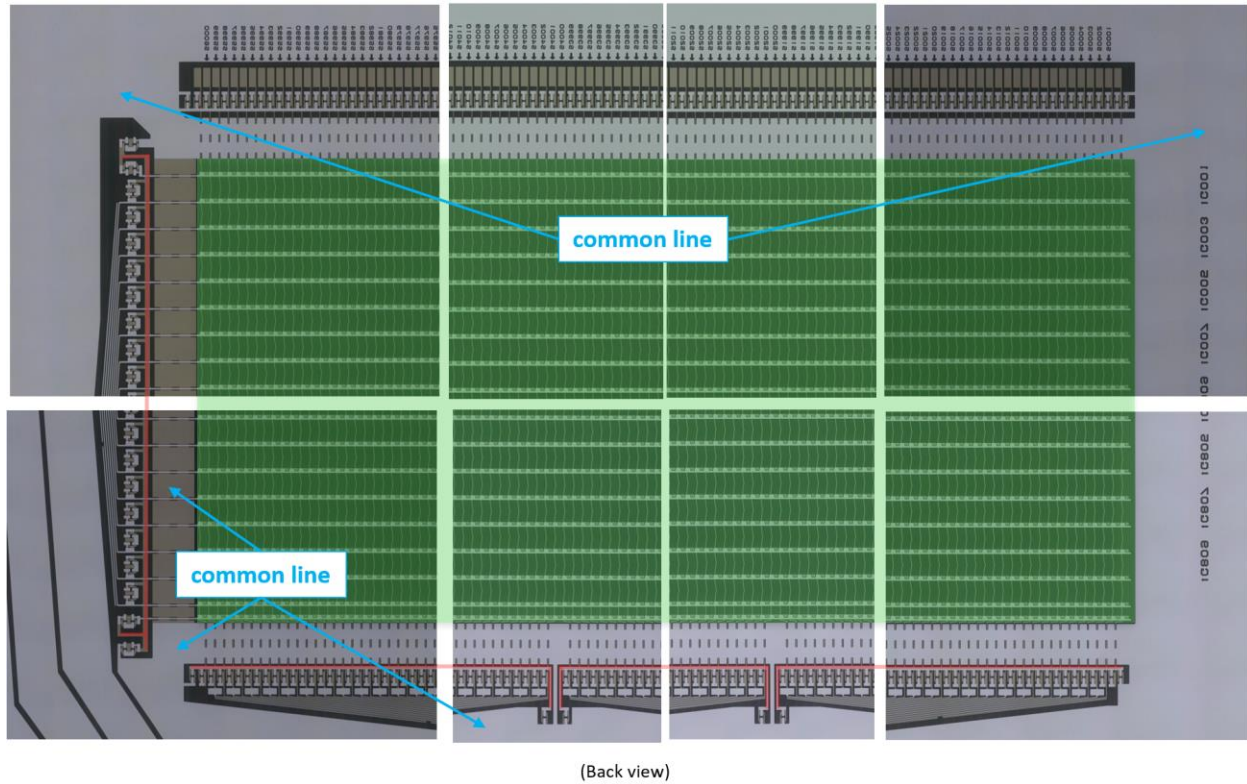
95. Each of the Accused '166 Tianma Products includes a floating line disposed along the periphery of the display area to maintain a floating state.

96. For example, Tianma's 11" LCD display panel in the Equinox EV driver information cluster includes a floating line disposed along the periphery of the display area to maintain a floating state.



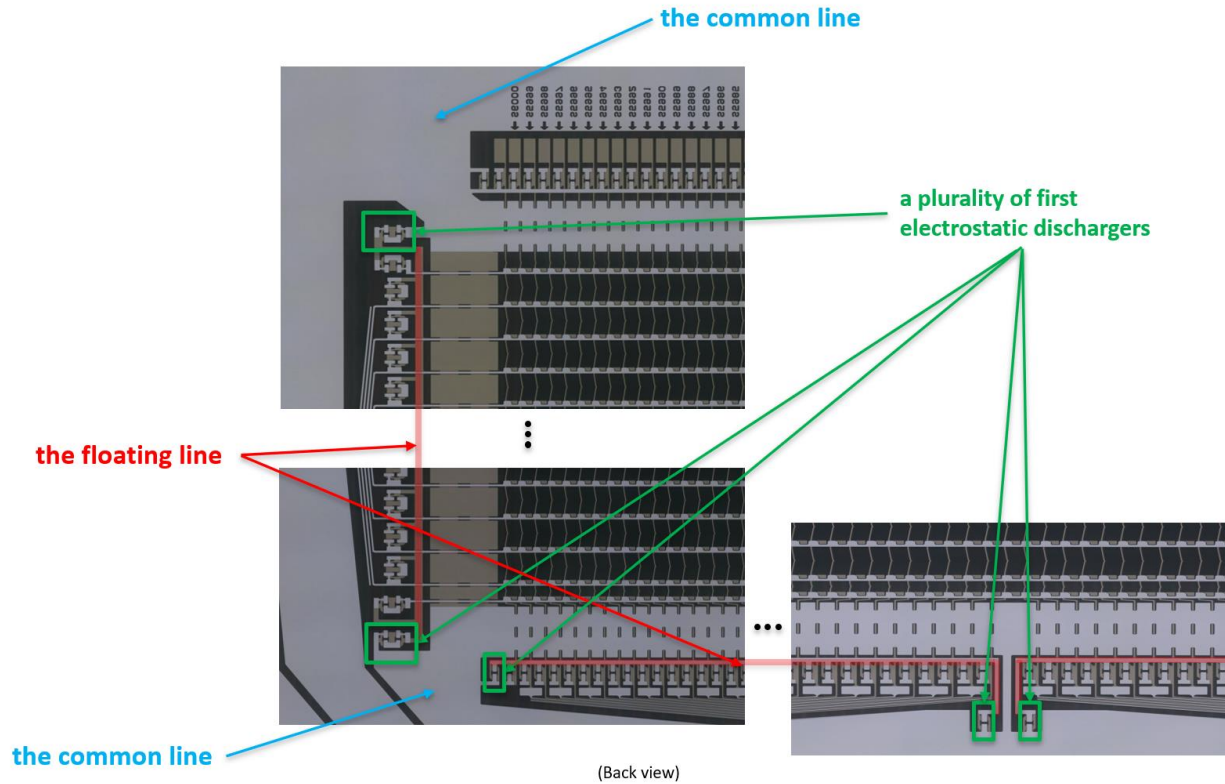
97. Each of the Accused '166 Tianma Products includes a common line disposed along the periphery of the floating line to apply a common voltage.

98. For example, Tianma's 11" LCD display panel in the Equinox EV driver information cluster includes a common line disposed along the periphery of the floating line to apply a common voltage.



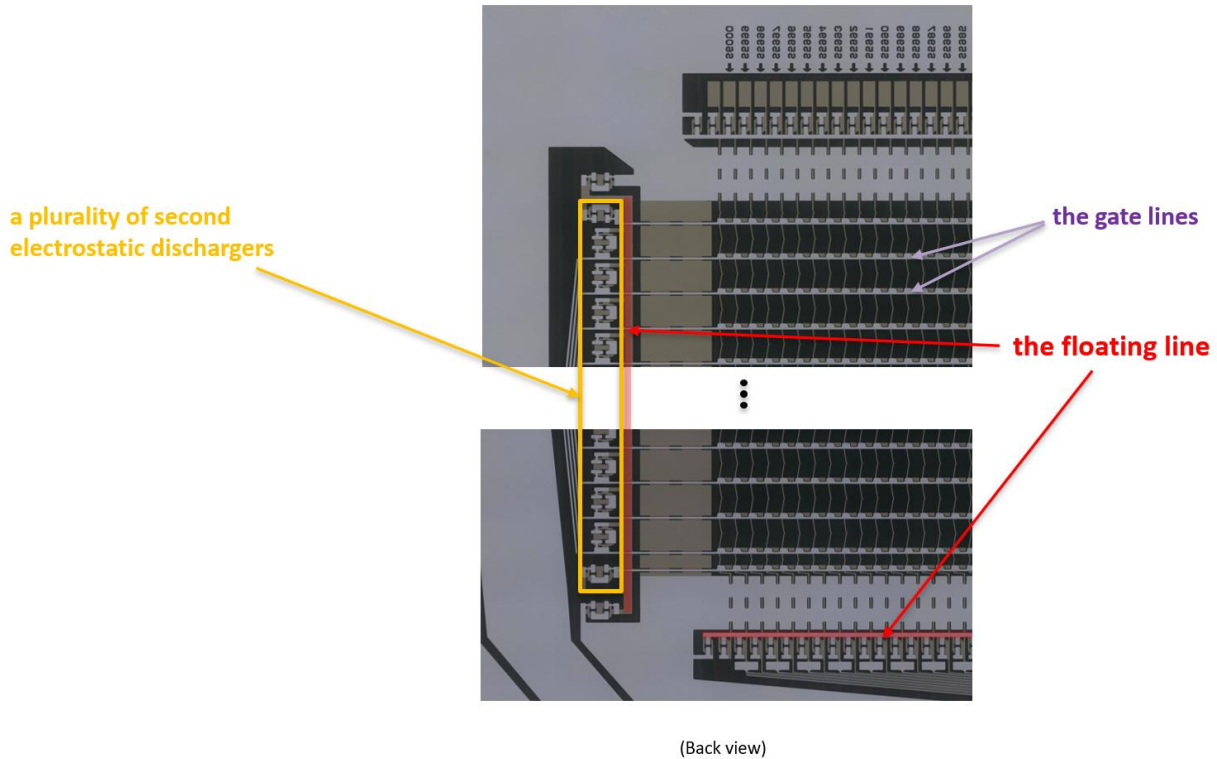
99. Each of the Accused '166 Tianma Products includes a plurality of first electrostatic dischargers connected between the common line and the floating line.

100. For example, Tianma's 11" LCD display panel in the Equinox EV driver information cluster includes a plurality of first electrostatic dischargers connected between the common line and the floating line.



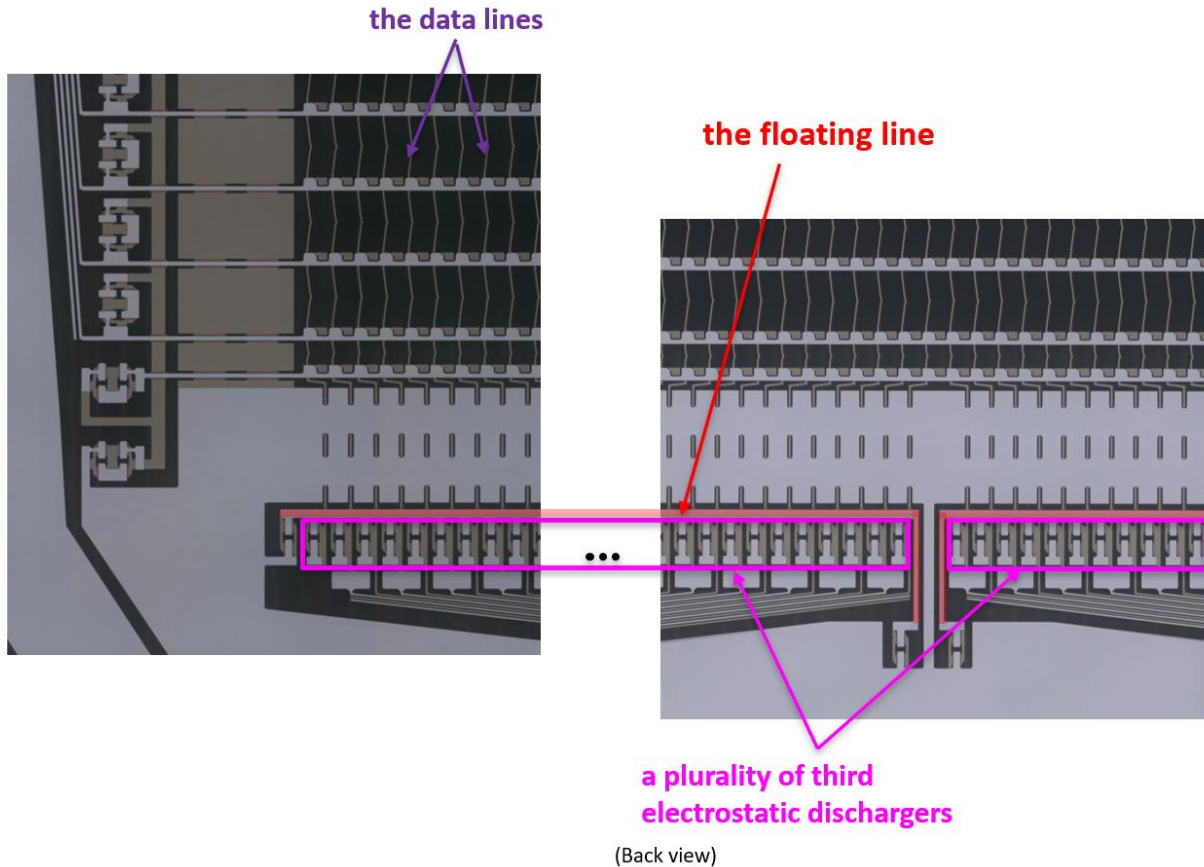
101. Each of the Accused '166 Tianma Products includes a plurality of second electrostatic dischargers connected between the floating line and the gate lines.

102. For example, Tianma's 11" LCD display panel in the Equinox EV driver information cluster includes a plurality of second electrostatic dischargers connected between the floating line and the gate lines.



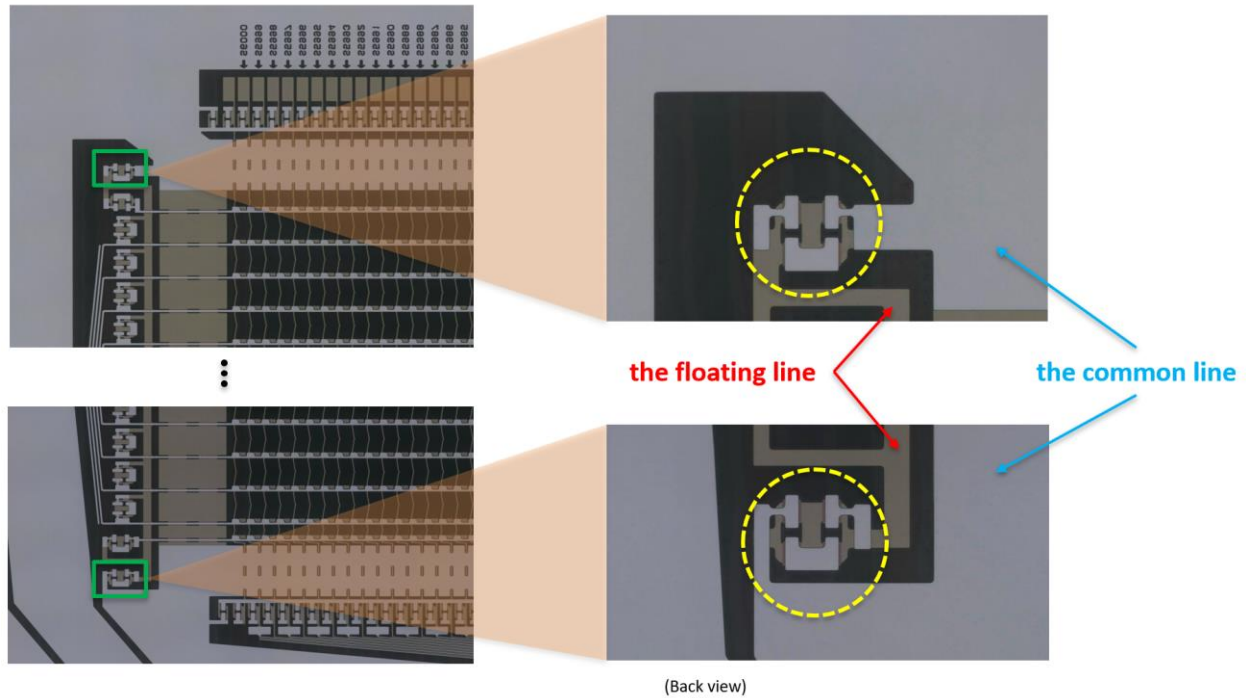
103. Each of the Accused '166 Tianma Products includes a plurality of third electrostatic dischargers connected between the floating line and the data lines.

104. For example, Tianma's 11" LCD display panel in the Equinox EV driver information cluster includes a plurality of third electrostatic dischargers connected between the floating line and the data lines.



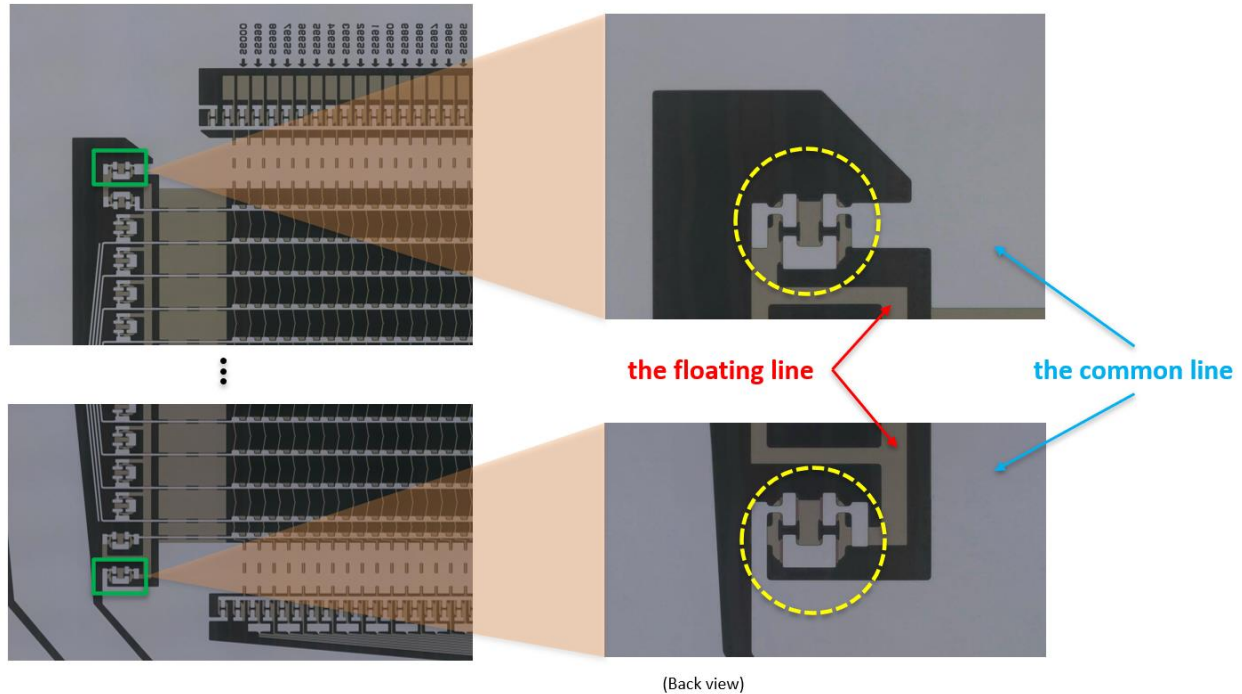
105. In each of the Accused '166 Tianma Products, the floating line is electrically disconnected from the common line.

106. For example, in Tianma's 11" LCD display panel in the Equinox EV driver information cluster, the floating line is electrically disconnected from the common line. For example, in the dotted yellow-circle areas, the floating line is electrically disconnected from the common line, except when shorted by the static electricity.



107. In each of the Accused '166 Tianma Products, no voltage is applied to the floating line and a common voltage is applied to the common line.

108. For example, in Tianma's 11" LCD display panel in the Equinox EV driver information cluster, no voltage is applied to the floating line and a common voltage is applied to the common line from D-IC and/or FPC pad.



109. The foregoing establishes Tianma's direct infringement of at least claim 1 of the '166 Patent under 35 U.S.C. § 271(a).

110. In addition, Tianma has indirectly infringed, and on information and belief intends to continue to indirectly infringe including after the filing of this complaint, at least claim 1 of the '166 Patent by, among other things, actively inducing its customers and affiliates to make, use, sell, and/or offer to sell and/or to import at least the Accused '166 Tianma Products. Tianma committed these acts of inducement with knowledge of the '166 Patent and its infringement thereof, as described earlier. Thus, Tianma is further liable for infringement of the '166 Patent pursuant to 35 U.S.C. § 271(b).

111. Tianma has also contributorily infringed, and on information and belief intends to continue to indirectly infringe including after the filing of this complaint, the '166 Patent. For example, the Accused '166 Tianma Products include hardware that by its arrangement at least meets all elements of claim 1. These are components of a patented machine, manufacture, or

combination. Further, these components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Tianma is also liable for infringement of the '166 Patent pursuant to 35 U.S.C. § 271(c).

112. Unless and until enjoined by this Court, Tianma will continue to infringe as well as induce and contribute to infringement of the '166 Patent. Tianma's infringing acts are causing and will continue to cause LG Display irreparable harm, for which there is no adequate remedy at law. Under 35 U.S.C. § 283, LG Display is entitled to a permanent injunction against further infringement.

113. Tianma had notice of the '166 Patent and details of Tianma's infringement thereof at least as of the filing and service of this Complaint. Moreover, Tianma had actual knowledge of LG Display's patent portfolio and details of Tianma's infringement thereof, especially those involving the technologies regarding LCD display panels such as the '166 Patent that issued on April 9, 2013, at least by July 2015, when Tianma and LG Display held the first meeting for the purpose of discussing a license agreement covering LG Display's patents. During this meeting, LG Display made a specific offer to Tianma regarding the terms of a license, including a proposed royalty rate or lump sum payment, which was communicated directly to Jason Huang, Senior Director of the IP Department at Tianma.

114. By the time of trial, Tianma will thus have known and intended (since receiving this notice) that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '166 Patent.

115. Tianma undertook and continued its infringing actions despite an objectively high likelihood that it infringed the '166 Patent, which has been duly issued by the USPTO, and is presumed valid. On information and belief, Tianma could not reasonably, subjectively believe that

its actions do not constitute infringement of the '166 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Tianma continued its infringing activities with knowledge of the '166 Patent. As such, Tianma has willfully infringed and continue to willfully infringe the '166 Patent.

116. LG Display has been and continues to be damaged by Tianma's infringement of the '166 Patent.

**COUNT 2 – INFRINGEMENT OF U.S. PATENT NO. 8,736,801**

117. LG Display incorporates all prior paragraphs here by reference.

118. U.S. Patent No. 8,736,801 (the "'801 Patent") duly issued on May 27, 2014, and is entitled *Display Panel and Display Device Comprising the Same*.

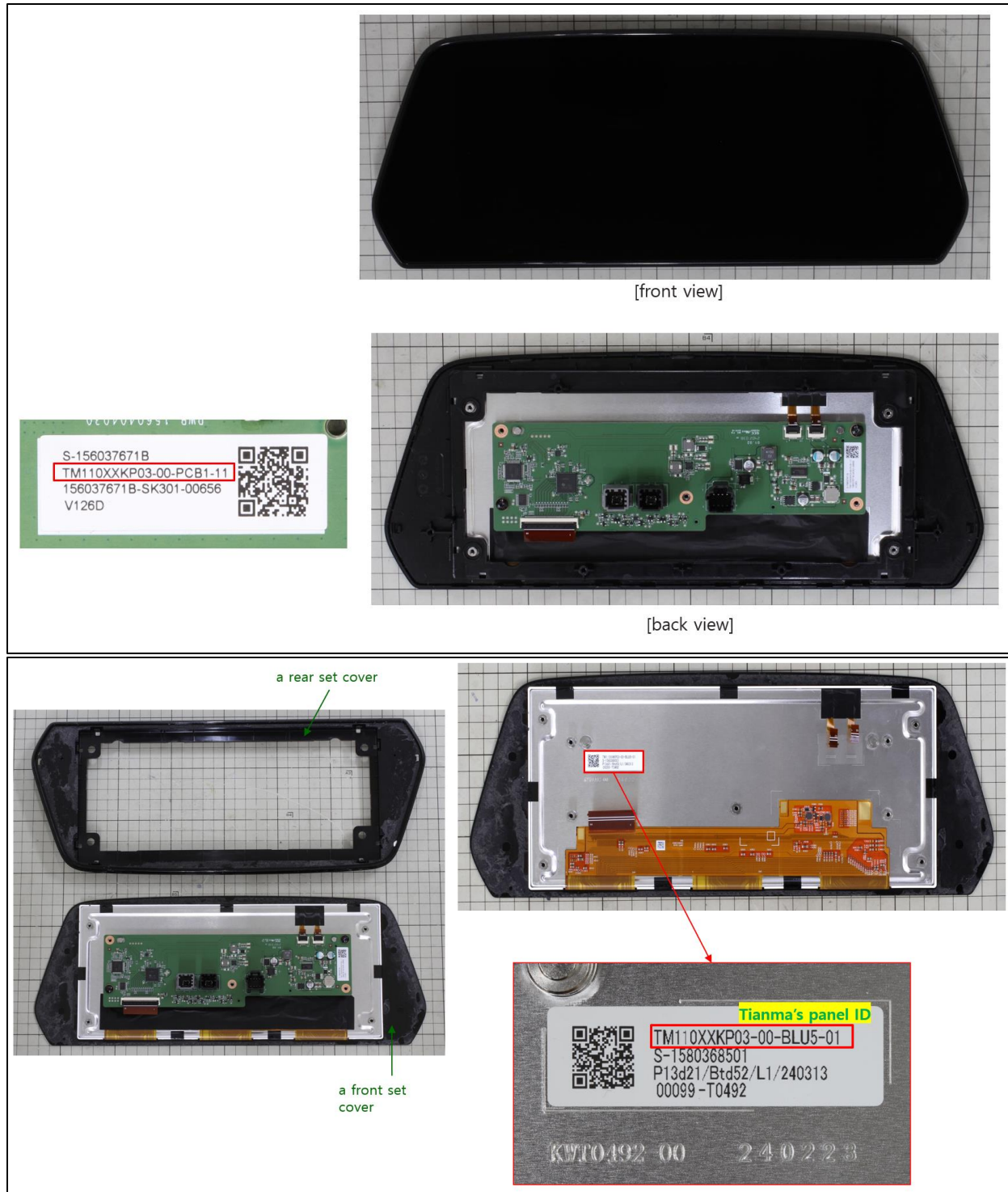
119. The '801 Patent claims priority to KR 10-2010-0058960, filed on June 22, 2010.

120. LG Display is the owner by assignment of the '801 Patent and possesses all rights under the '801 Patent, including the exclusive right to recover for past and future infringement.

121. Tianma has directly infringed at least claim 1 of the '801 Patent, literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its LCD display panels, including the Accused Auto LCD Tianma Products.

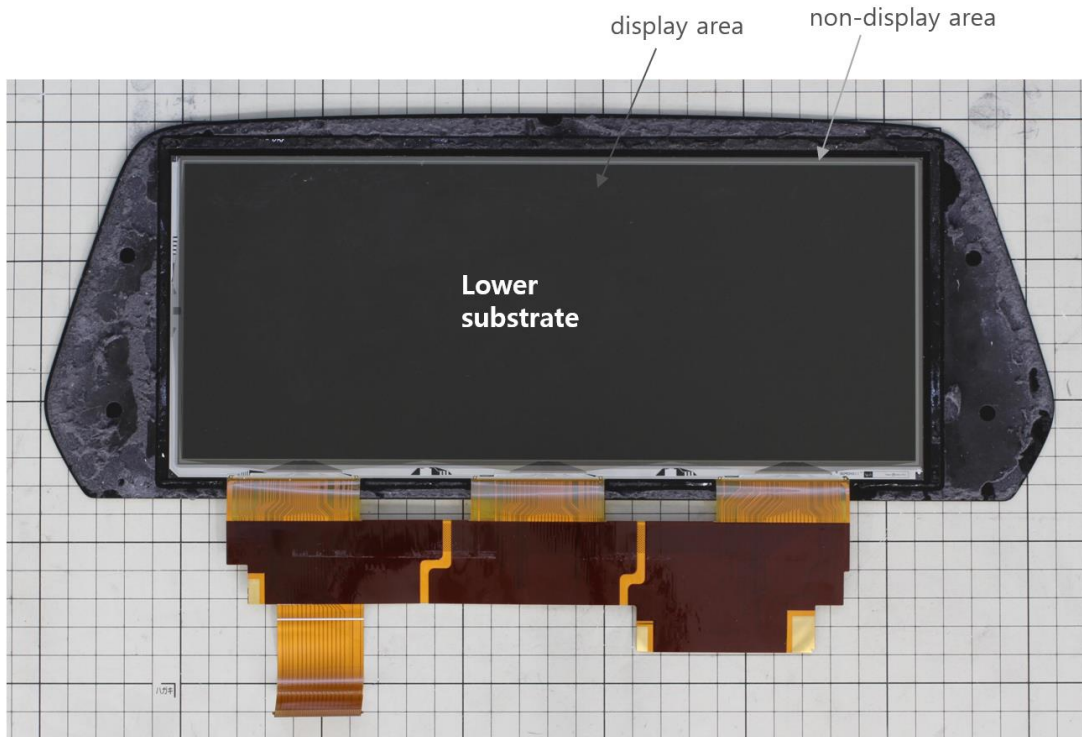
122. Each of the Accused '801 Tianma Products is or includes a display panel.

123. For example, the Equinox EV driver information cluster includes Tianma's 11" LCD display panel.



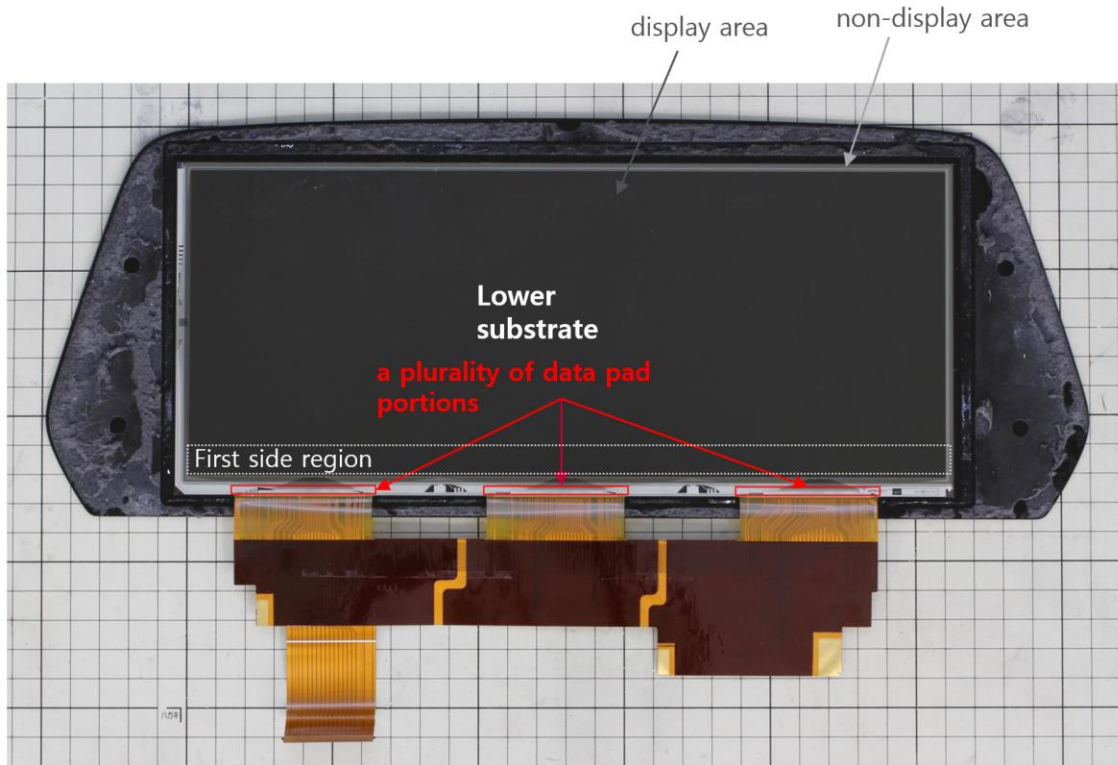
124. Each of the Accused '801 Tianma Products includes a lower substrate provided with a display area and a non-display area.

125. For example, Tianma's 11" LCD display panel in the Equinox EV driver information cluster includes a lower substrate provided with a display area and a non-display area.



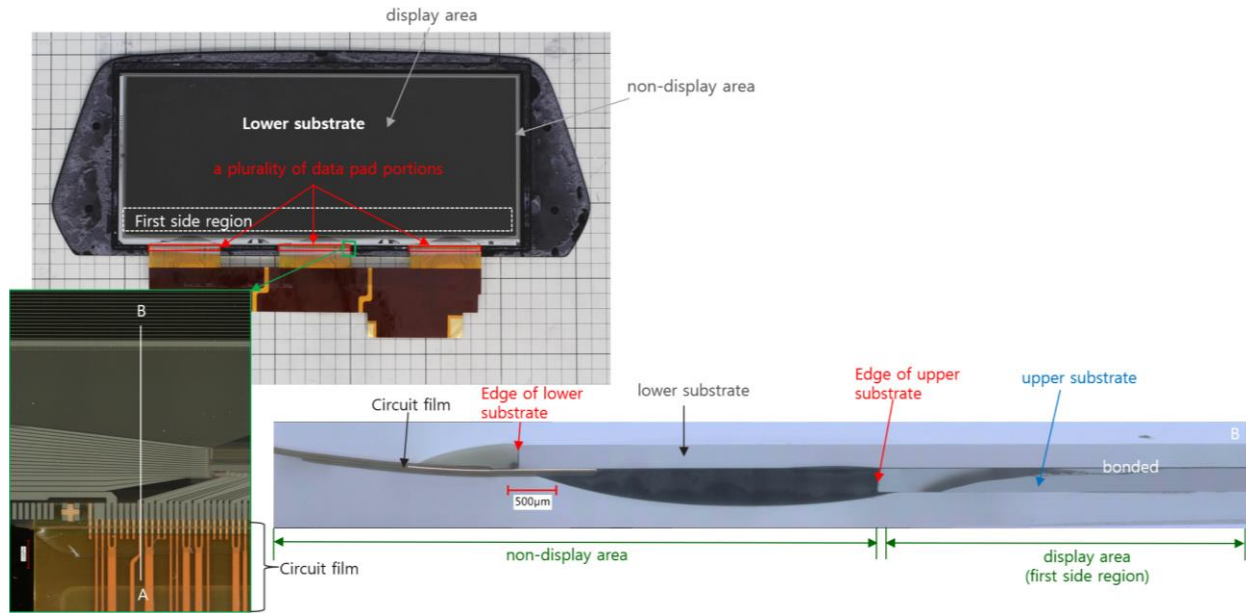
126. Each of the Accused '801 Tianma Products includes a plurality of data pad portions formed at the non-display area adjacent to a first side region of the display area.

127. For example, Tianma's 11" LCD display panel in the Equinox EV driver information cluster includes a plurality of data pad portions formed at the non-display area adjacent to a first side region of the display area.



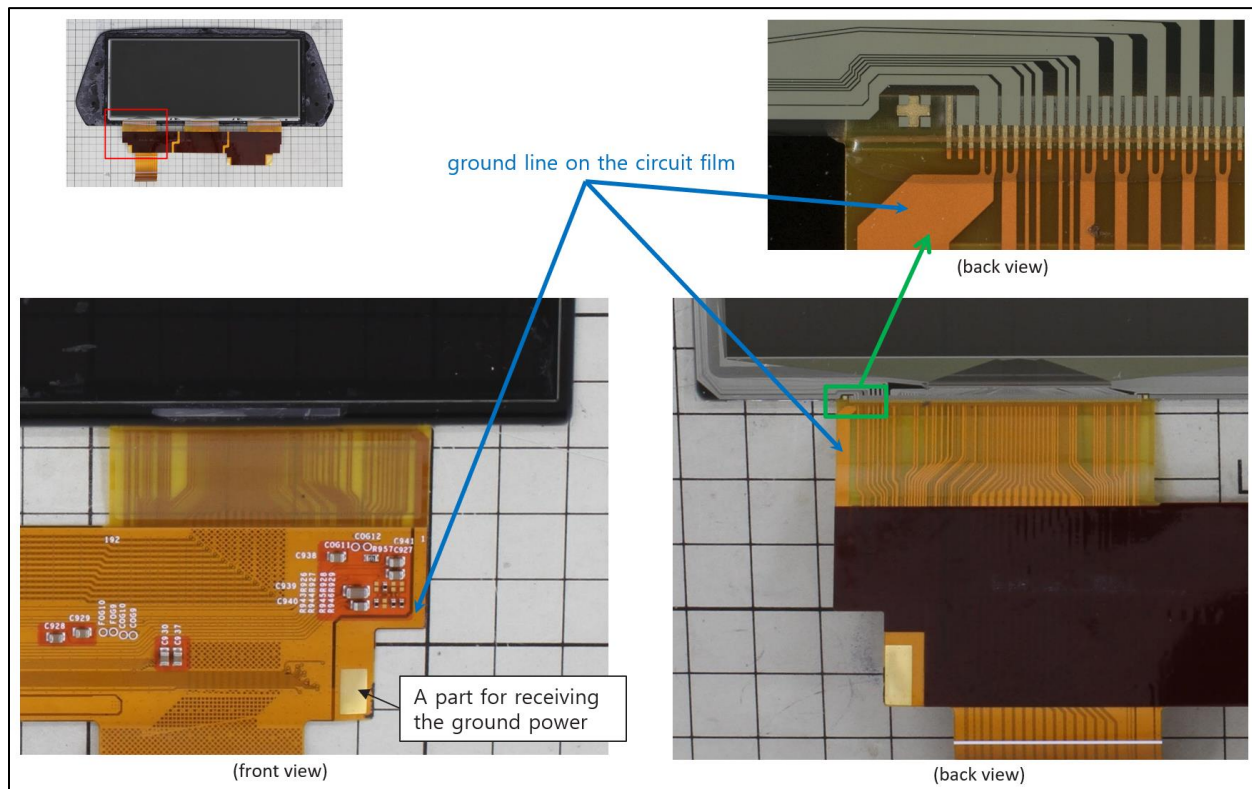
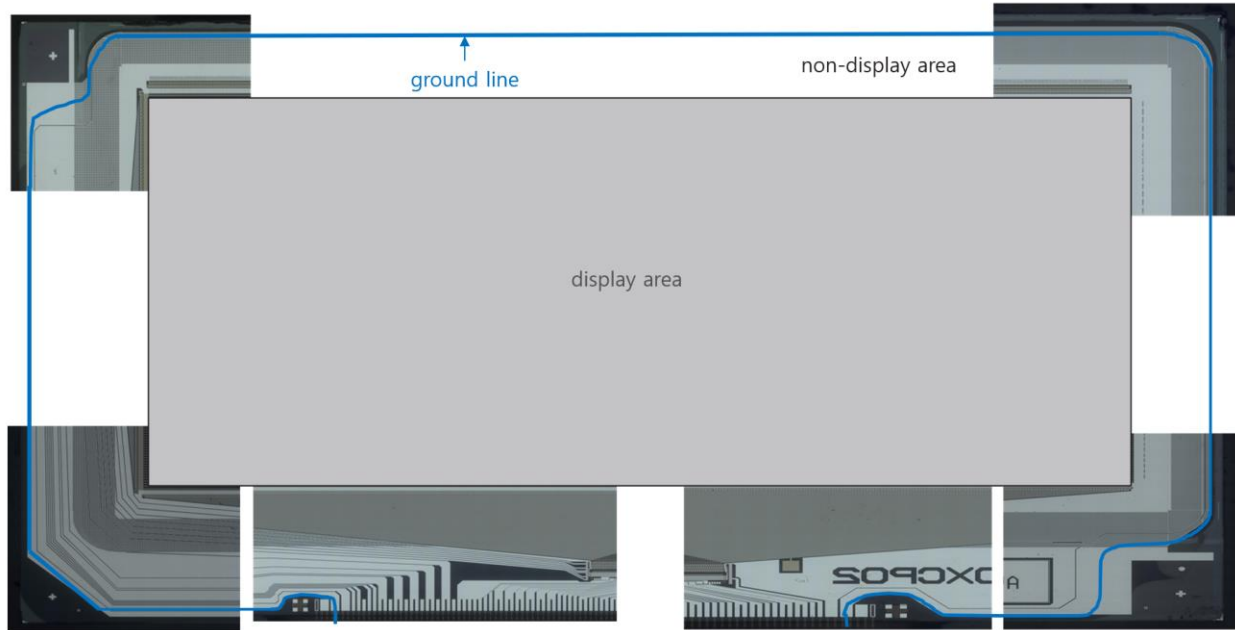
128. Each of the Accused '801 Tianma Products includes an upper substrate bonded to the lower substrate, except for the non-display area adjacent to the first side region of the display area.

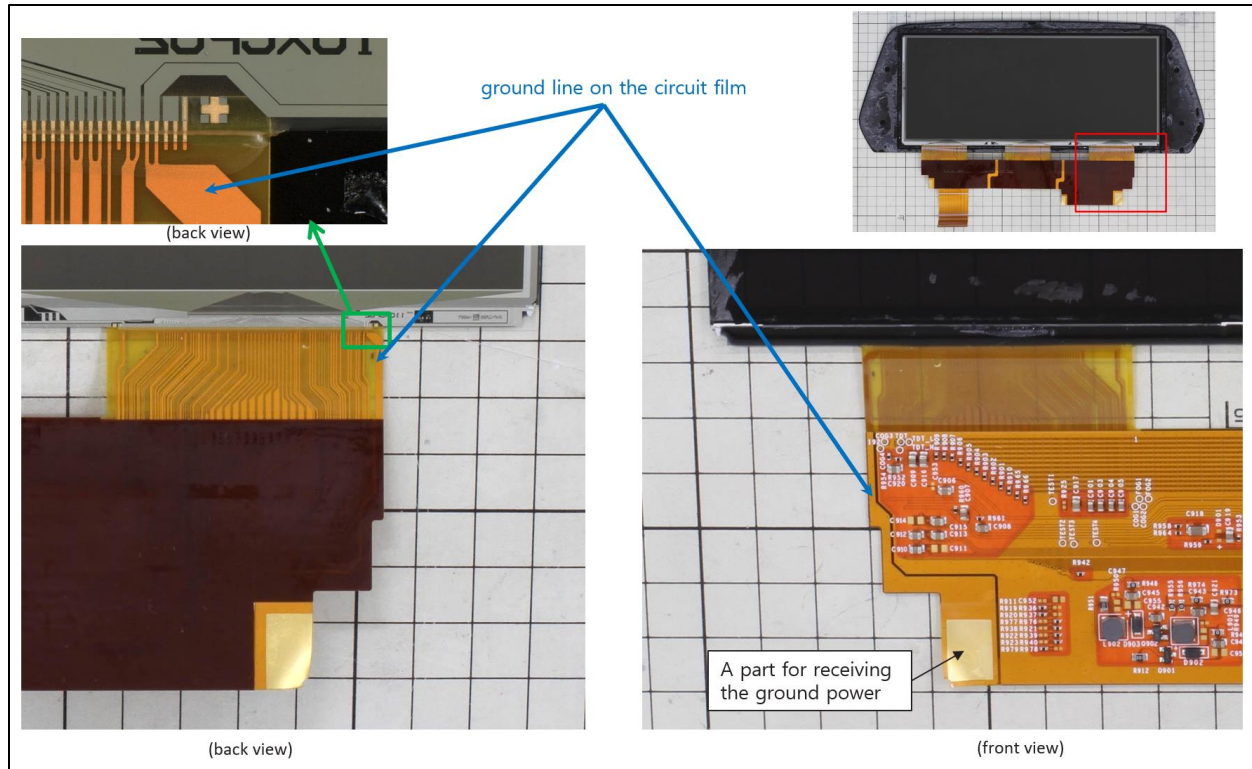
129. For example, Tianma's 11" LCD display panel in the Equinox EV driver information cluster includes an upper substrate bonded to the lower substrate, except for the non-display area adjacent to the first side region of the display area.



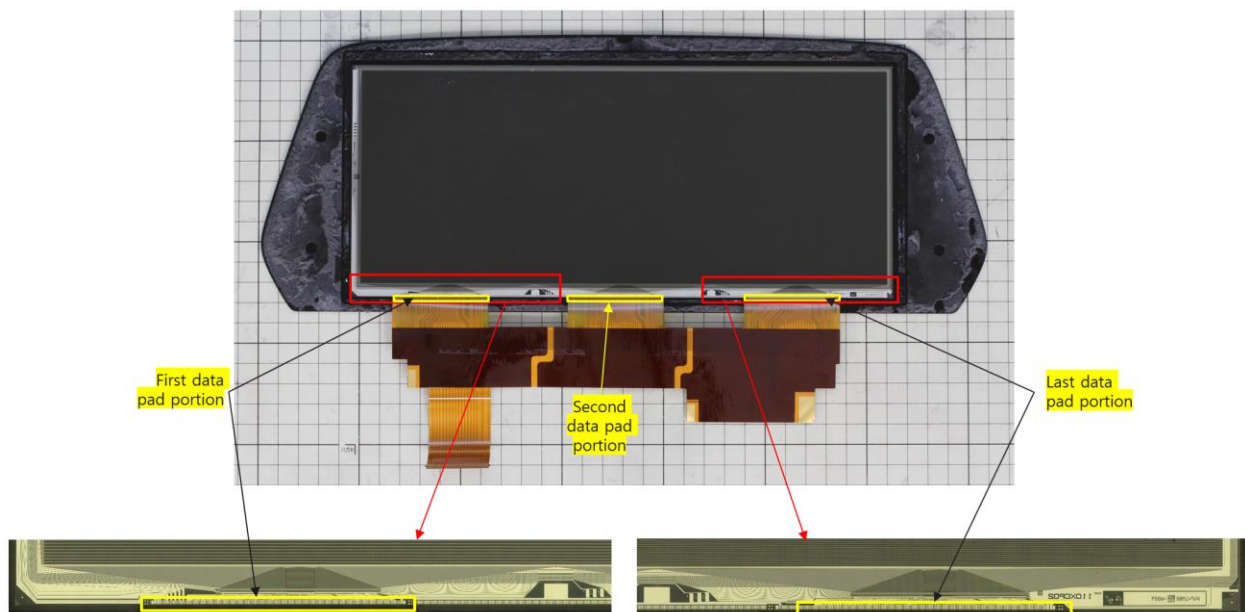
130. Each of the Accused '801 Tianma Products includes at least one ground line supplied with ground power, and formed on the lower substrate of the non-display area to surround in part an outline portion of the display area, the at least one ground line including a first ground line connected between a first data pad portion and a last data pad portion of the plurality of data pad portions.

131. For example, Tianma's 11" LCD display panel in the Equinox EV driver information cluster includes at least one ground line supplied with ground power, and formed on the lower substrate of the non-display area to surround in part an outline portion of the display area.



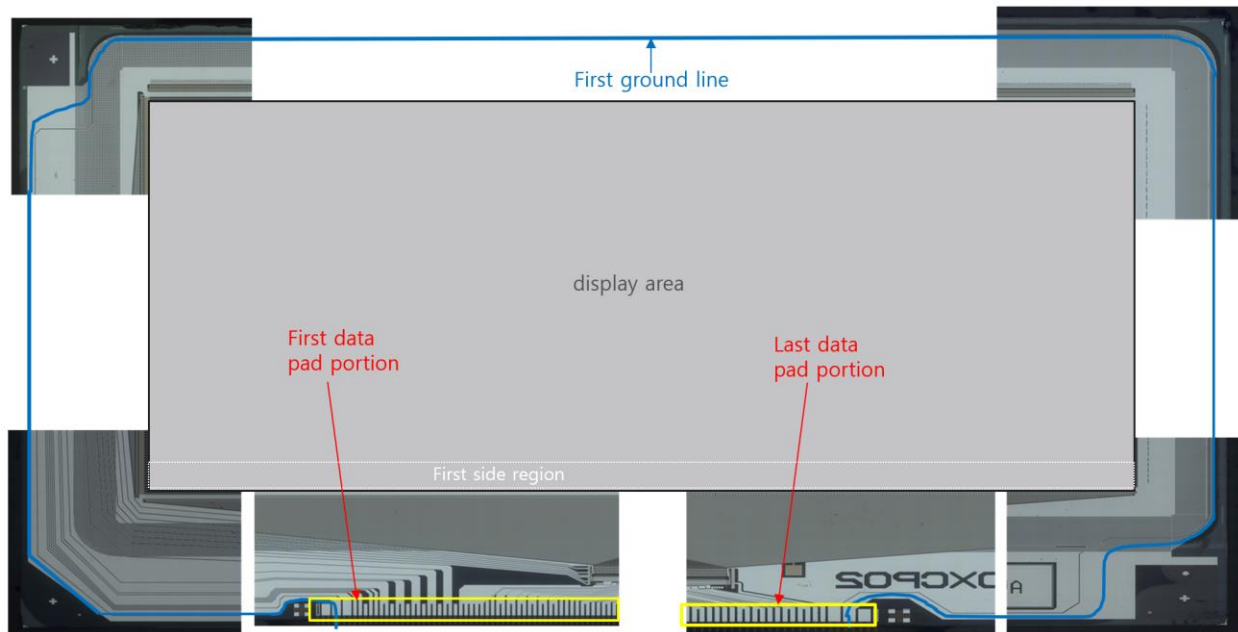


132. Tianma's 11" LCD display panel in the Equinox EV driver information cluster includes at least one ground line including a first ground line connected between a first data pad portion and a last data pad portion of the plurality of data pad portions.



133. In each of the Accused '801 Tianma Products, the first ground line, without separation by any pad portions, extends along all of the side regions of the display area except for the first side region.

134. For example, in Tianma's 11" LCD display panel in the Equinox EV driver information cluster, the first ground line, without separation by any pad portions, extends along all of the side regions of the display area except for the first side region.



135. The foregoing establishes Tianma's direct infringement of at least claim 1 of the '801 Patent under 35 U.S.C. § 271(a).

136. In addition, Tianma has indirectly infringed, and on information and belief intends to continue to indirectly infringe including after the filing of this complaint, at least claim 1 of the '801 Patent by, among other things, actively inducing its customers and affiliates to make, use, sell, and/or offer to sell and/or to import at least the Accused '801 Tianma Products. Tianma committed these acts of inducement with knowledge of the '801 Patent and its infringement thereof,

as described earlier. Thus, Tianma is further liable for infringement of the '801 Patent pursuant to 35 U.S.C. § 271(b).

137. Tianma has also contributorily infringed, and on information and belief intends to continue to indirectly infringe including after the filing of this complaint, the '801 Patent. For example, the Accused '801 Tianma Products include hardware that by its arrangement at least meets all elements of claim 1. These are components of a patented machine, manufacture, or combination. Further, these components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Tianma is also liable for infringement of the '801 Patent pursuant to 35 U.S.C. § 271(c).

138. Unless and until enjoined by this Court, Tianma will continue to infringe as well as induce and contribute to infringement of the '801 Patent. Tianma's infringing acts are causing and will continue to cause LG Display irreparable harm, for which there is no adequate remedy at law. Under 35 U.S.C. § 283, LG Display is entitled to a permanent injunction against further infringement.

139. Tianma had notice of the '801 Patent and details of Tianma's infringement thereof at least as of the filing and service of this Complaint. Moreover, Tianma had actual knowledge of LG Display's patent portfolio and details of Tianma's infringement thereof, especially those involving the technologies regarding LCD display panels such as the '801 Patent that issued on April 9, 2013, at least by July 2015, when Tianma and LG Display held the first meeting for the purpose of discussing a license agreement covering LG Display's patents, including the '801 Patent. During this meeting, LG Display made a specific offer to Tianma regarding the terms of a license, including a proposed royalty rate or lump sum payment, which was communicated directly to Jason Huang, Senior Director of the IP Department at Tianma.

140. By the time of trial, Tianma will thus have known and intended (since receiving this notice) that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '801 Patent.

141. Tianma undertook and continued its infringing actions despite an objectively high likelihood that it infringed the '801 Patent, which has been duly issued by the USPTO, and is presumed valid. On information and belief, Tianma could not reasonably, subjectively believe that its actions do not constitute infringement of the '801 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Tianma continued its infringing activities with knowledge of the '801 Patent. As such, Tianma has willfully infringed and continue to willfully infringe the '801 Patent.

142. LG Display has been and continues to be damaged by Tianma's infringement of the '801 Patent.

**COUNT 3 – INFRINGEMENT OF U.S. PATENT NO. 10,175,803**

143. LG Display incorporates all prior paragraphs here by reference.

144. U.S. Patent No. 10,175,803 (the "'803 Patent") duly issued on January 8, 2019, and is entitled *Touch Sensing Device and Method for Driving the Same*.

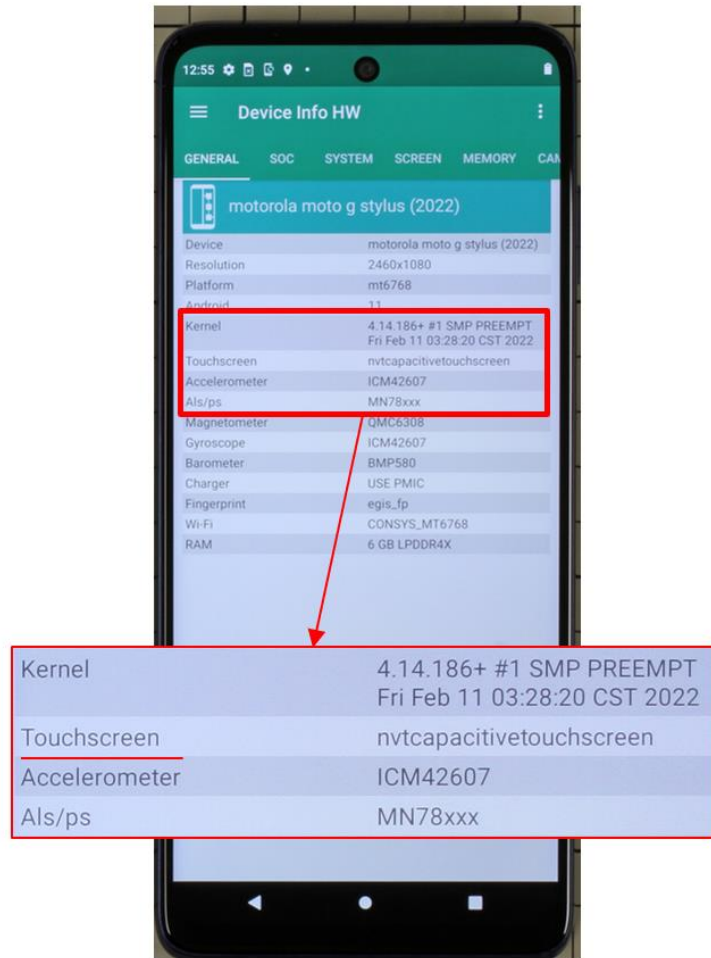
145. The '803 Patent claims priority to KR 10-2012-0056388, filed on May 5, 2012.

146. LG Display is the owner by assignment of the '803 Patent and possesses all rights under the '803 Patent, including the exclusive right to recover for past and future infringement.

147. Tianma has directly infringed at least claim 1 of the '803 Patent, literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its LCD display panels, including the Accused Mobile LCD Tianma Products.

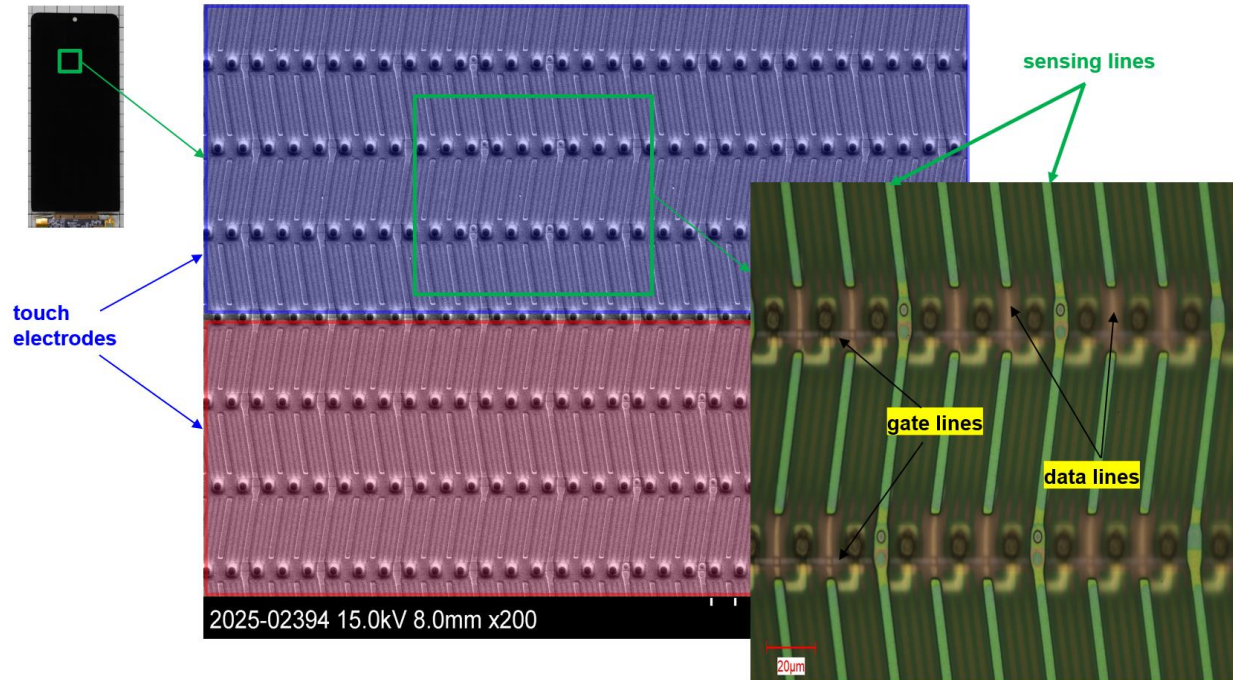
148. Each of the Accused '803 Tianma Products is or includes a touch sensing display device.

149. For example, Tianma's LCD display panel in the Moto G Stylus is or includes a touch sensing display device.



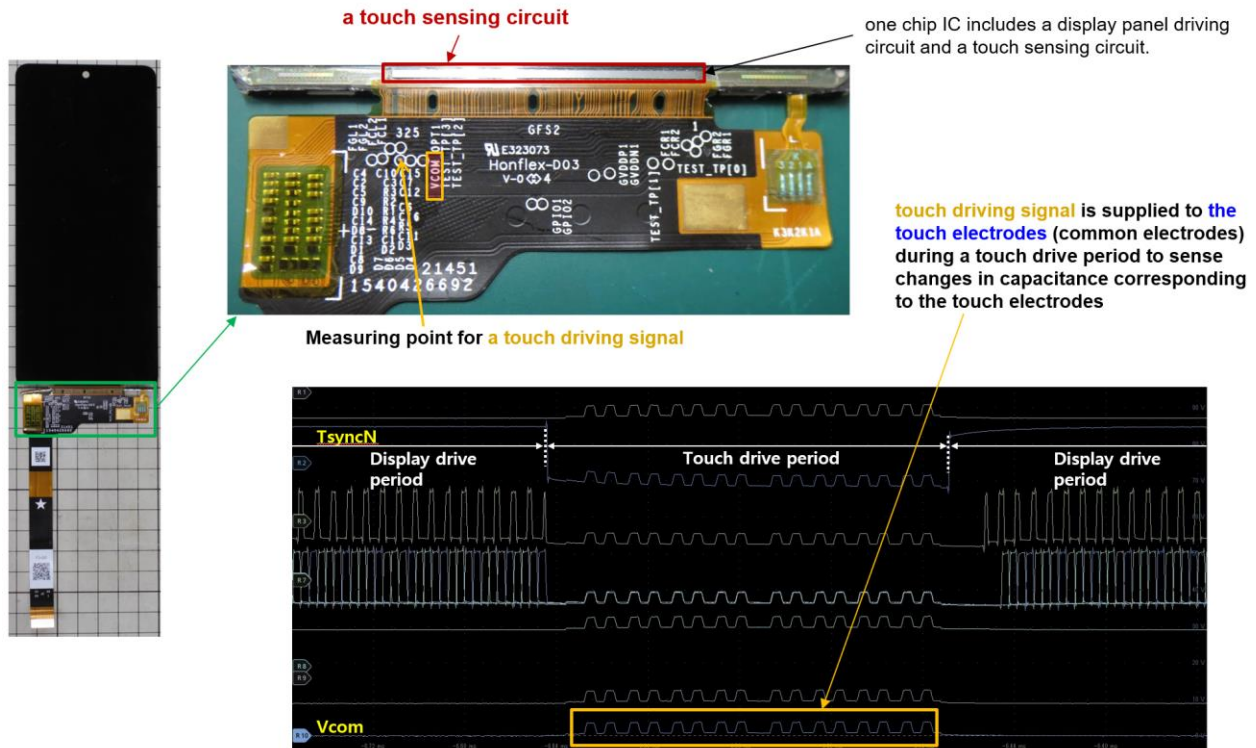
150. Each of the Accused '803 Tianma Products includes a display panel including data lines, gate lines, sensing lines and touch electrodes for sensing a touch and operated as common electrodes.

151. For example, Tianma's LCD display panel in the Moto G Stylus includes a display panel including data lines, gate lines, sensing lines and touch electrodes for sensing a touch and operated as common electrodes.

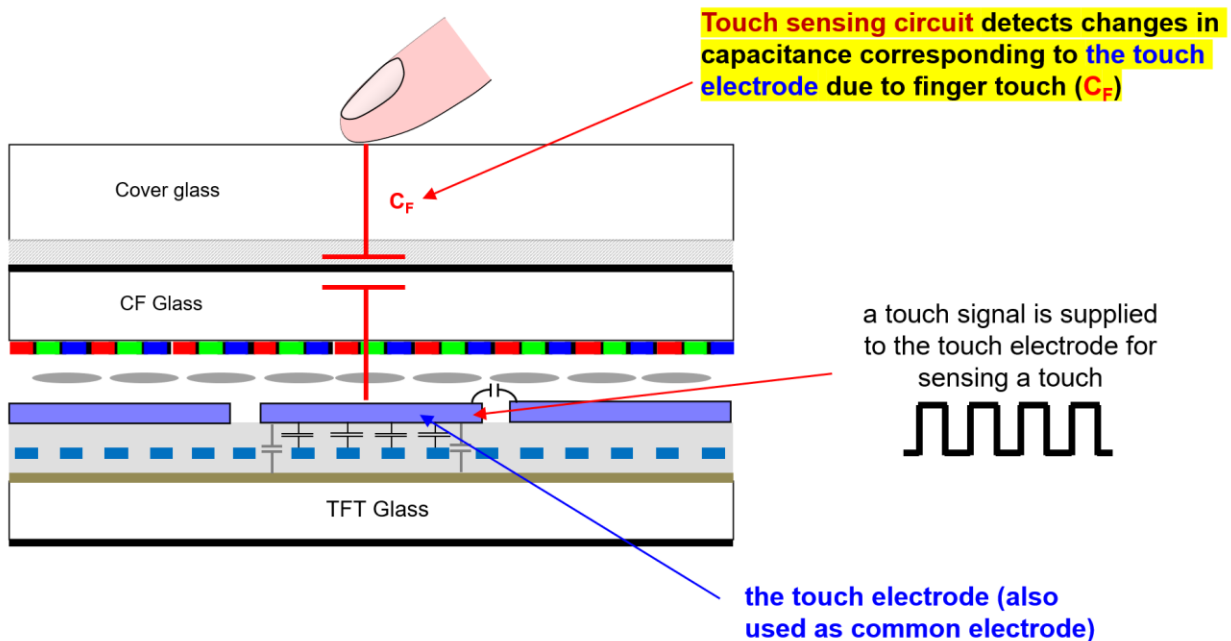


152. Each of the Accused '803 Tianma Products includes a touch sensing circuit configured to sense changes in capacitance corresponding to the touch electrodes during a touch drive period.

153. For example, Tianma's LCD display panel in the Moto G Stylus includes a touch sensing circuit configured to sense changes in capacitance corresponding to the touch electrodes during a touch drive period.

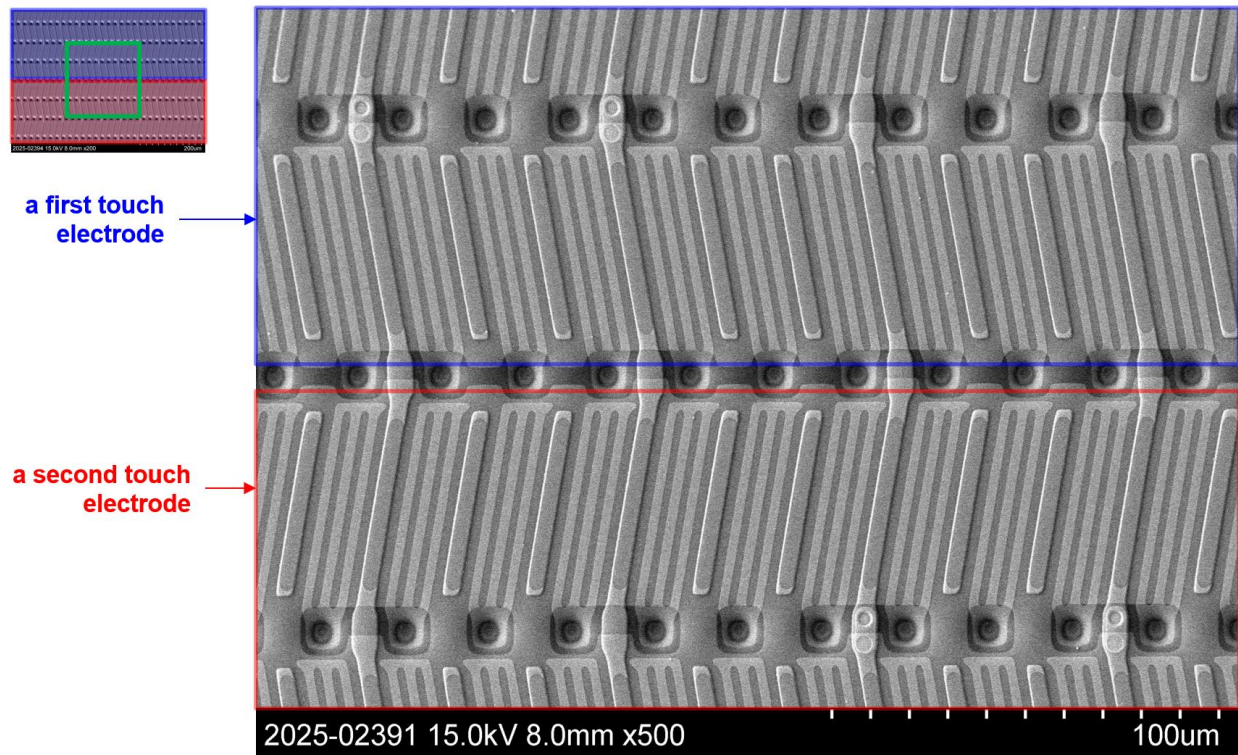


154. The following provides an example of sensing changes in capacitance corresponding to the touch electrodes.



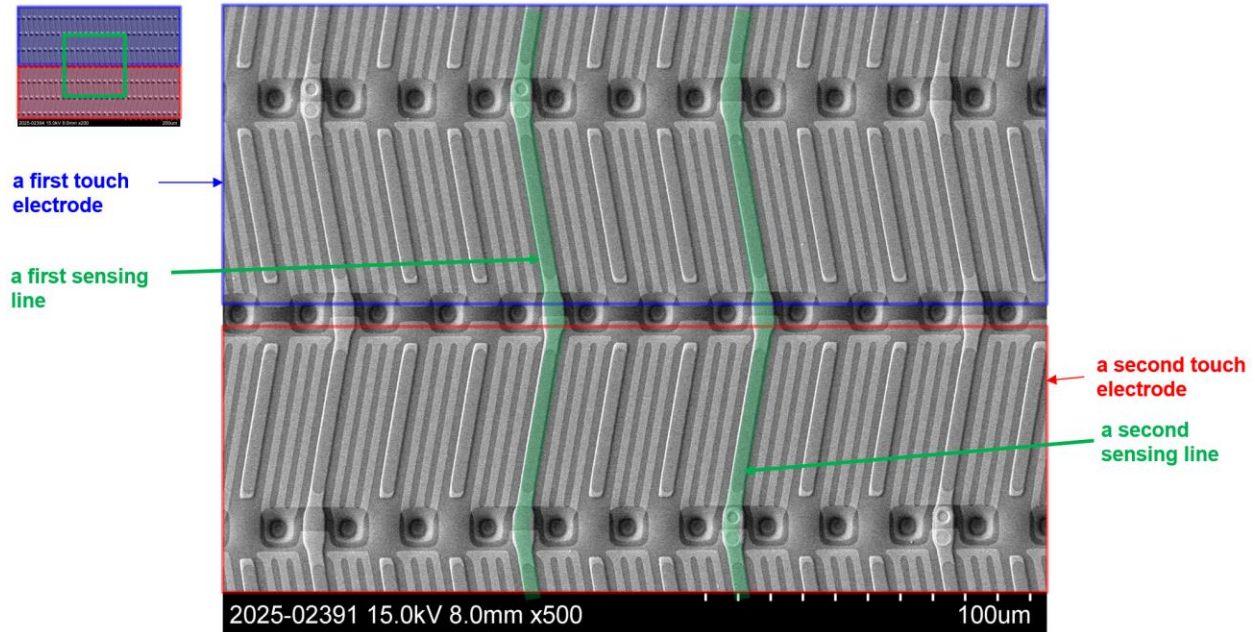
155. In each of the Accused '803 Tianma Products, the touch electrodes include a first touch electrode and a second touch electrode.

156. For example, in Tianma's LCD display panel in the Moto G Stylus, the touch electrodes include a first touch electrode and a second touch electrode.



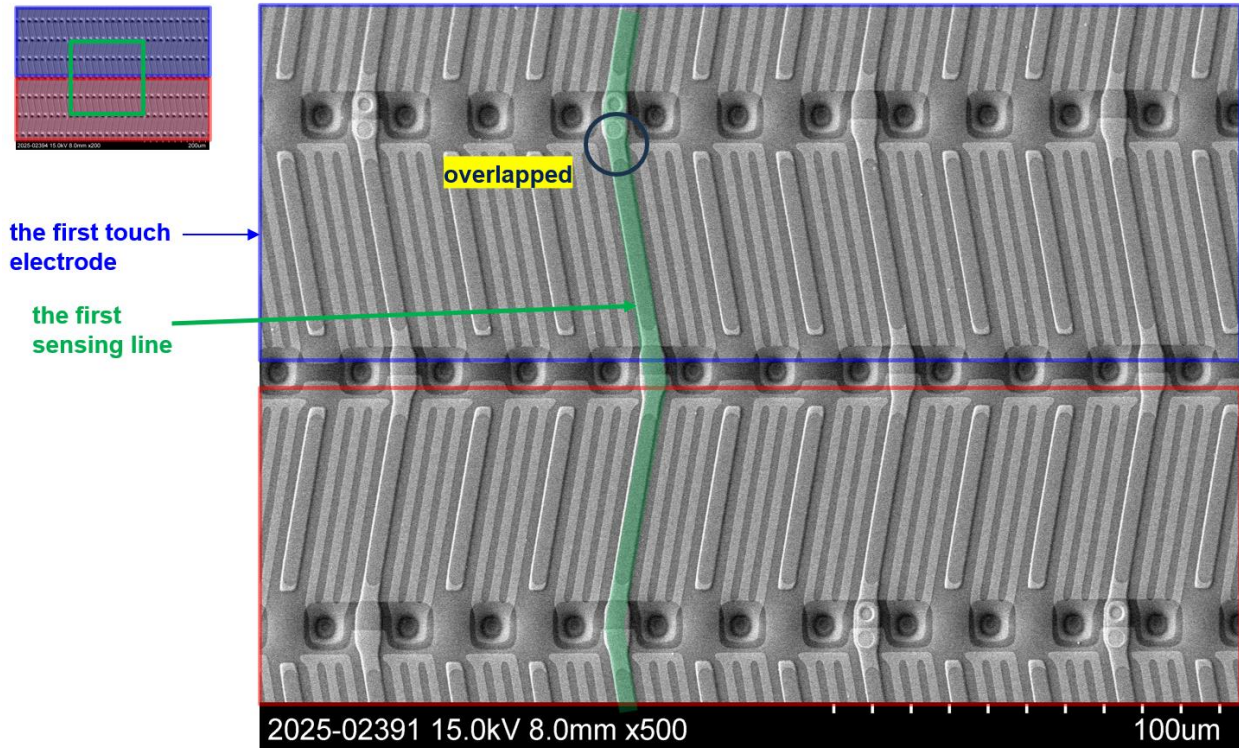
157. In each of the Accused '803 Tianma Products, the sensing lines include a first sensing line and a second sensing line.

158. For example, in Tianma's LCD display panel in the Moto G Stylus, the sensing lines include a first sensing line and a second sensing line.

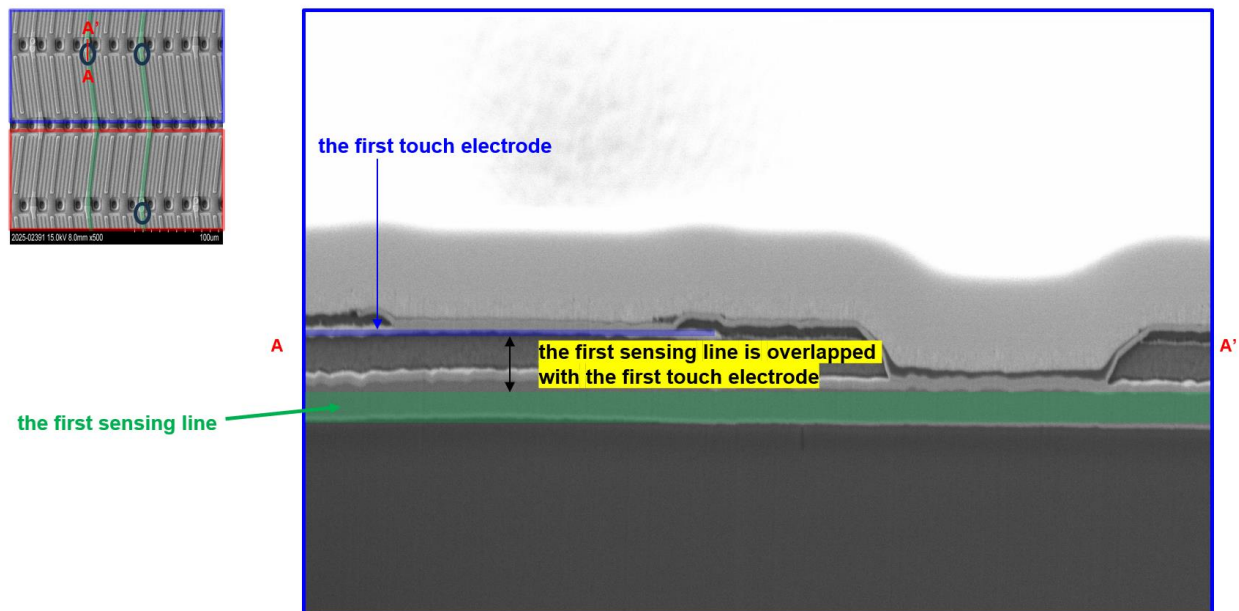


159. In each of the Accused '803 Tianma Products, the first sensing line is overlapped with the first touch electrode.

160. For example, in Tianma's LCD display panel in the Moto G Stylus, the first sensing line is overlapped with the first touch electrode.

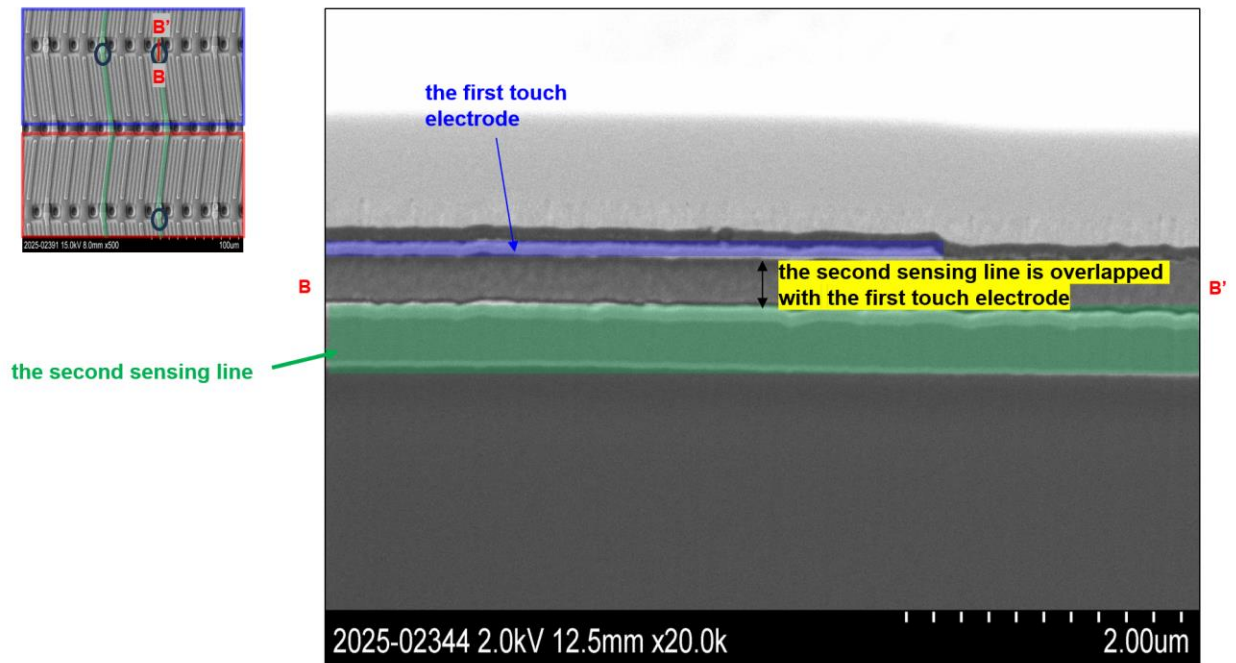
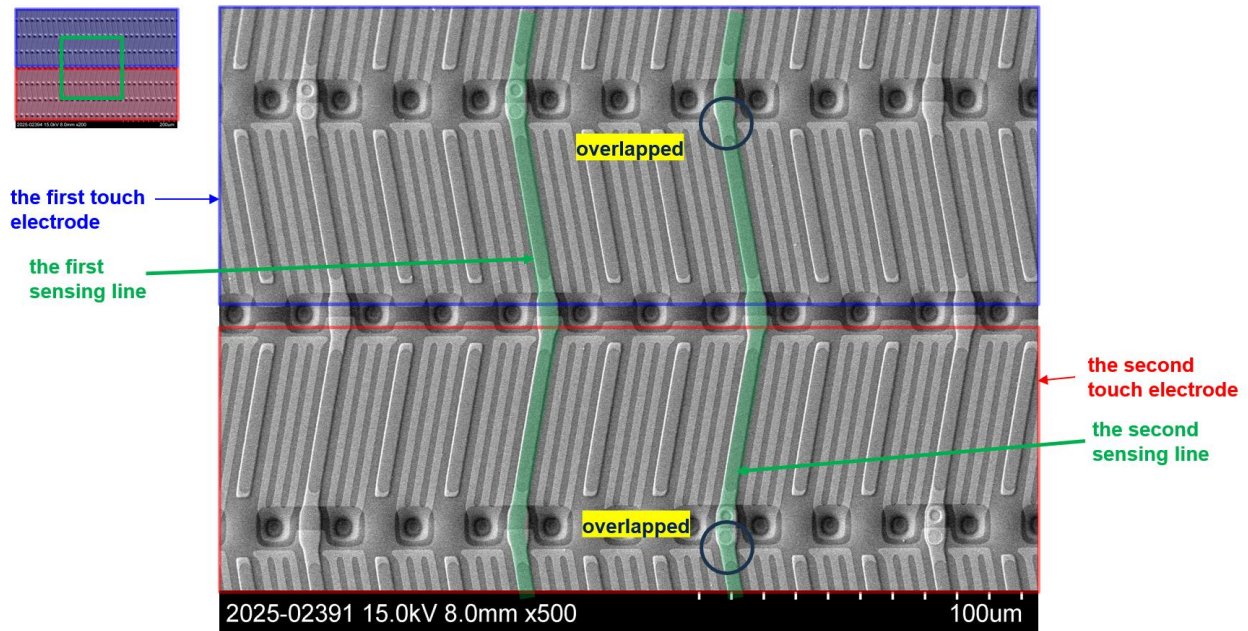


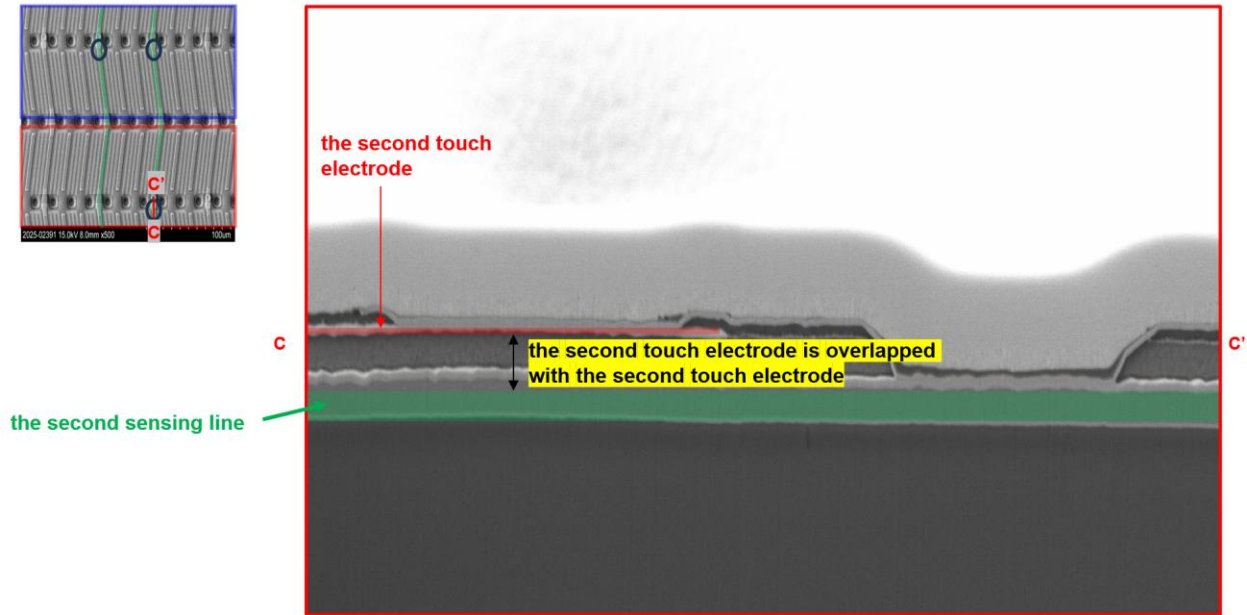
161. As a further example, the following shows that the first sensing line is overlapped with the first touch electrode.



162. In each of the Accused '803 Tianma Products, the second sensing line is overlapped with the first touch electrode and the second touch electrode.

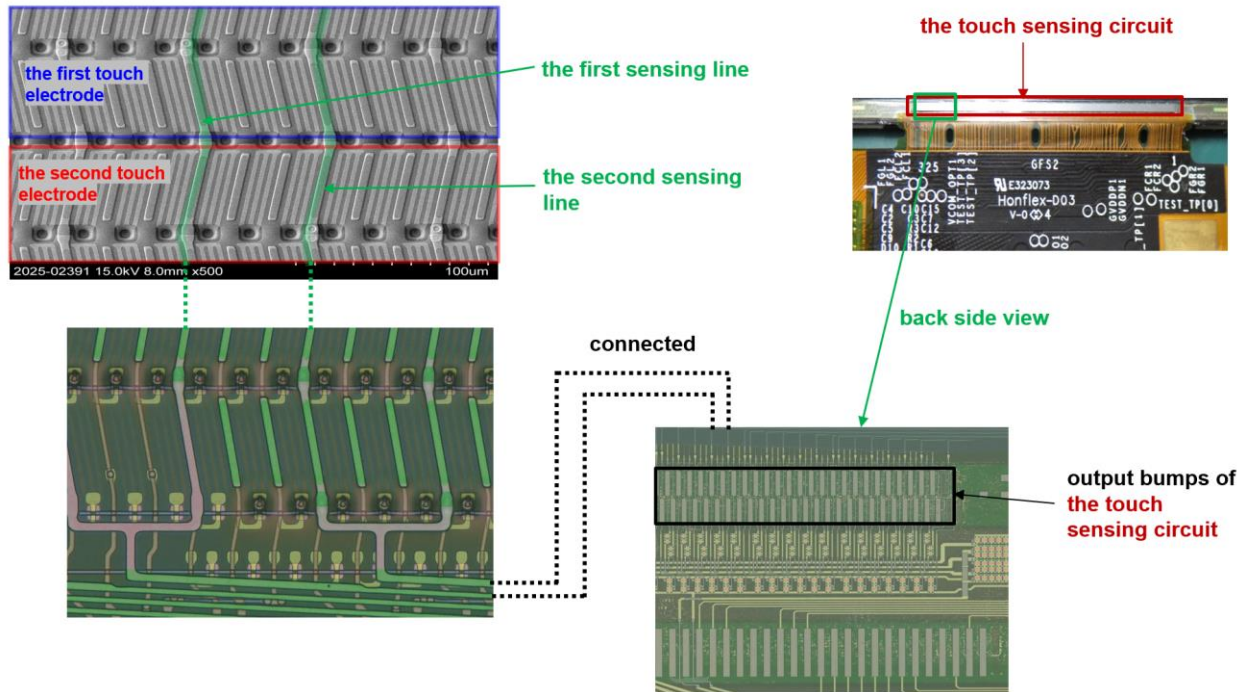
163. For example, in Tianma's LCD display panel in the Moto G Stylus, the second sensing line is overlapped with the first touch electrode and the second touch electrode.





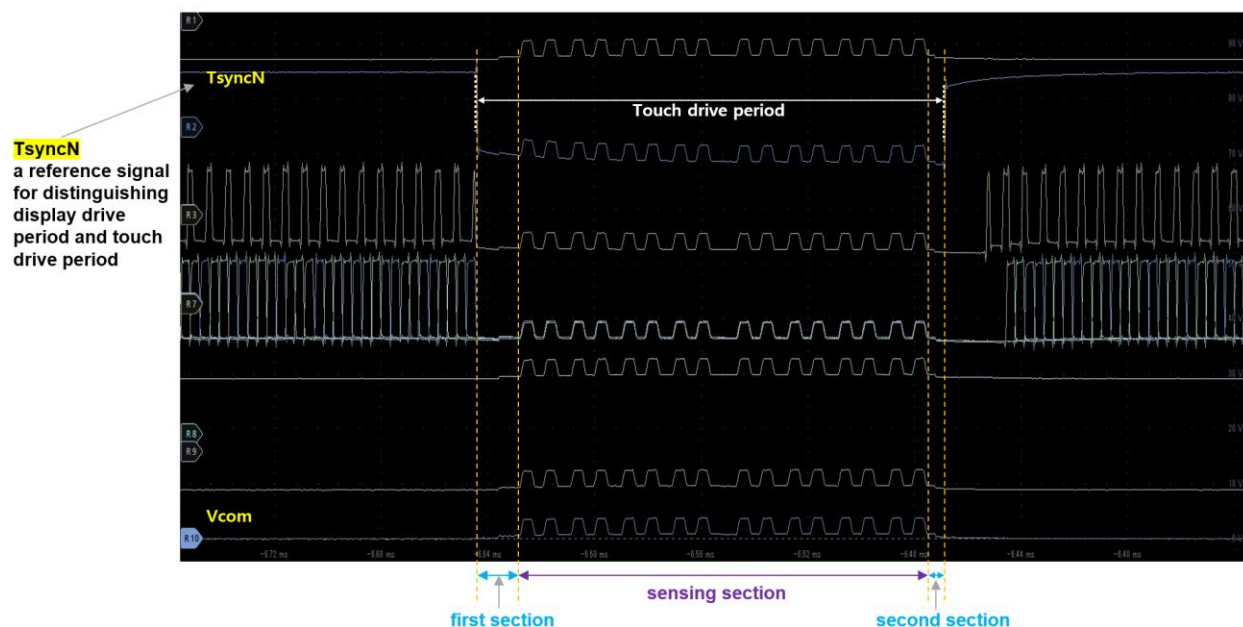
164. In each of the Accused '803 Tianma Products, the touch sensing circuit is connected to the first touch electrode through the first sensing line and is connected to the second touch electrode through the second sensing line.

165. For example, in Tianma's LCD display panel in the Moto G Stylus, the touch sensing circuit is connected to the first touch electrode through the first sensing line and is connected to the second touch electrode through the second sensing line.



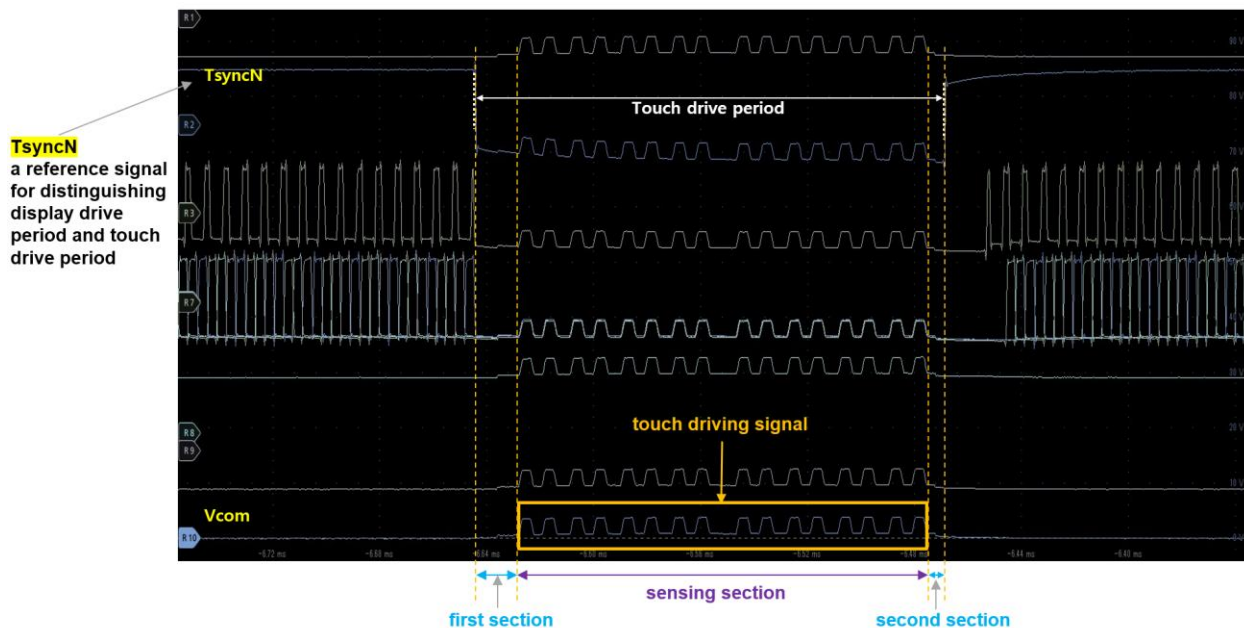
166. In each of the Accused '803 Tianma Products, the touch drive period includes a first section, a sensing section and a second section.

167. For example, in Tianma's LCD display panel in the Moto G Stylus, the touch drive period includes a first section, a sensing section and a second section.



168. In each of the Accused '803 Tianma Products, the touch sensing circuit supplies a touch driving signal to the first touch electrode and the second touch electrode to sense changes in the capacitance corresponding to the first touch electrode and the second touch electrode during the sensing section of the touch drive period.

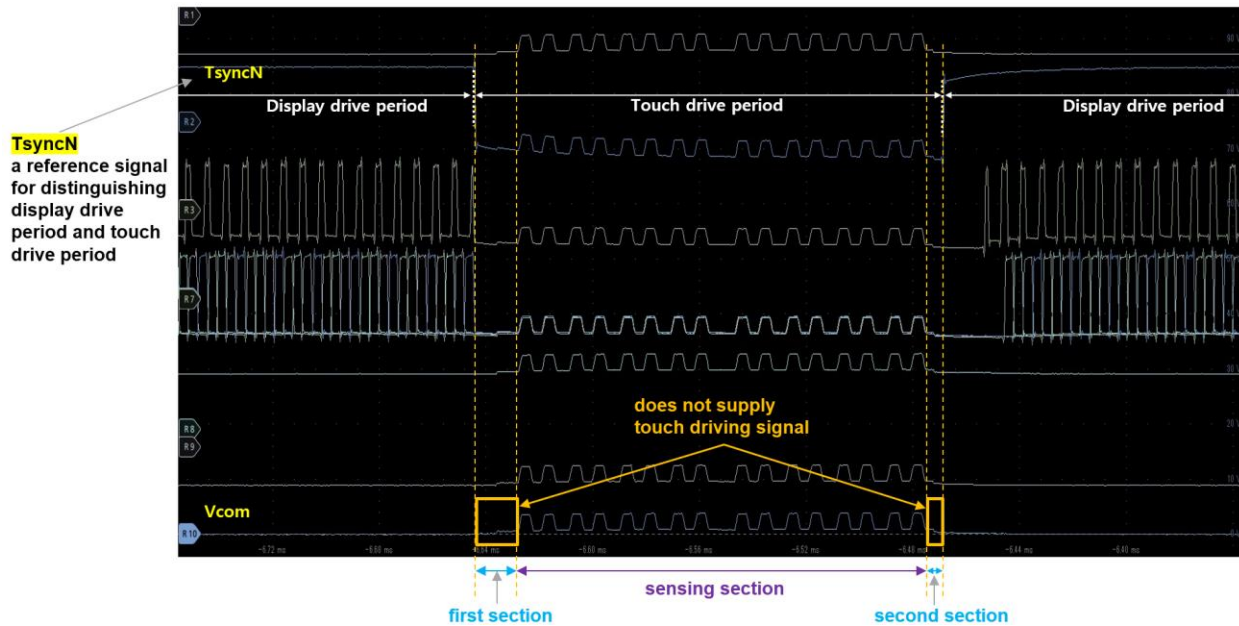
169. For example, in Tianma's LCD display panel in the Moto G Stylus, the touch sensing circuit supplies a touch driving signal to the first touch electrode and the second touch electrode to sense changes in the capacitance corresponding to the first touch electrode and the second touch electrode during the sensing section of the touch drive period.



170. In each of the Accused '803 Tianma Products, the touch sensing circuit does not supply the touch driving signal to the first touch electrode and the second touch electrode during the first section of the touch drive period or during the second section of the touch drive period.

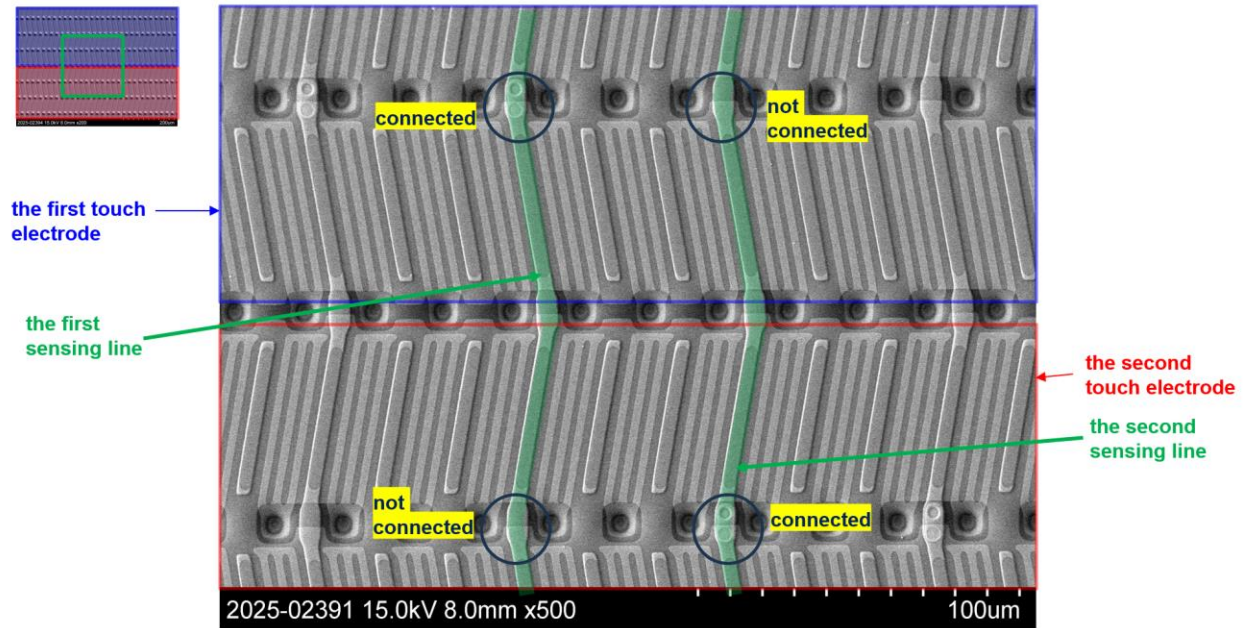
171. For example, in Tianma's LCD display panel in the Moto G Stylus, the touch sensing circuit does not supply the touch driving signal to the first touch electrode and the second

touch electrode during the first section of the touch drive period or during the second section of the touch drive period.

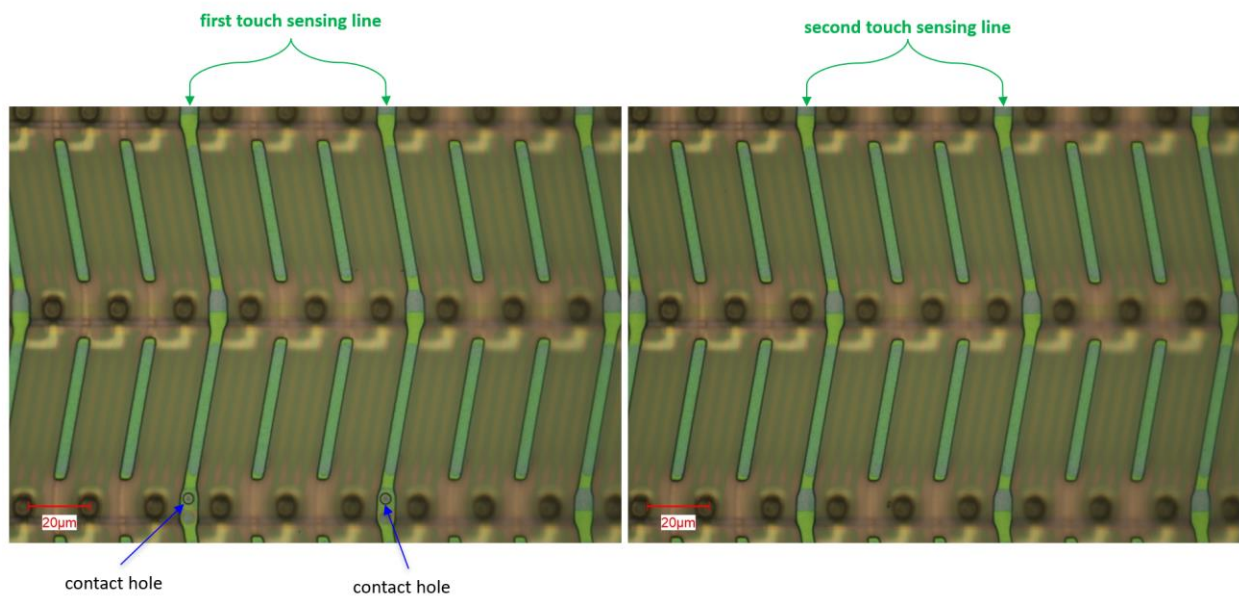


172. In each of the Accused '803 Tianma Products, the first touch electrode is connected to the first sensing line but not connected to the second sensing line, and the second touch electrode is connected to the second sensing line but not connected to the first sensing line.

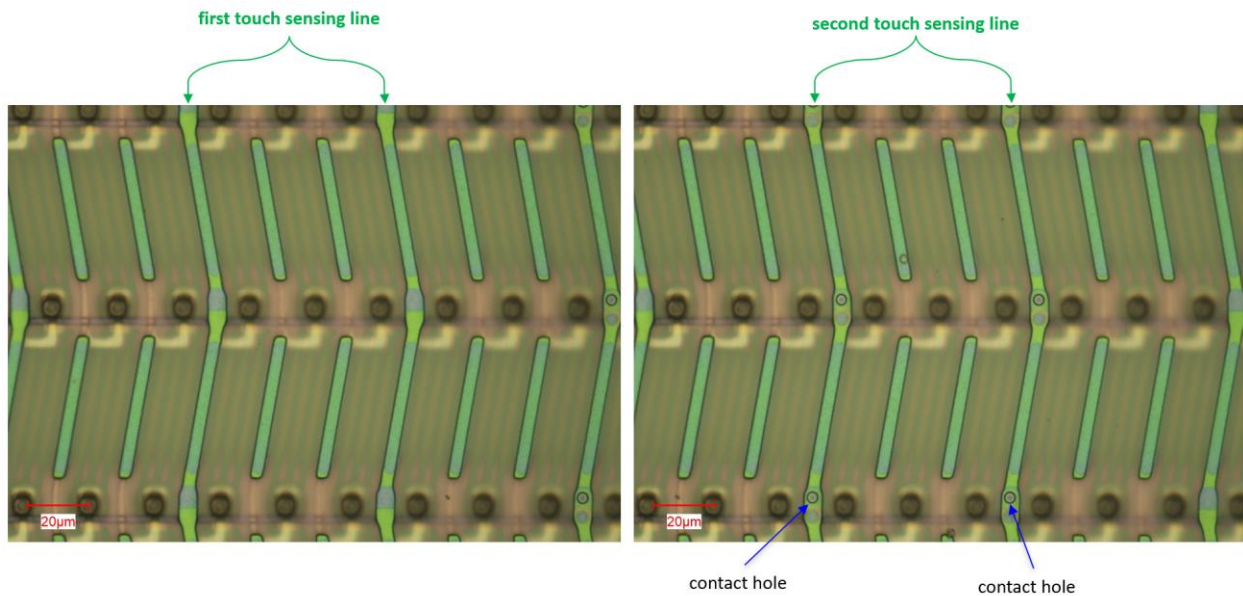
173. For example, in Tianma's LCD display panel in the Moto G Stylus, the first touch electrode is connected to the first sensing line but not connected to the second sensing line, and the second touch electrode is connected to the second sensing line but not connected to the first sensing line.



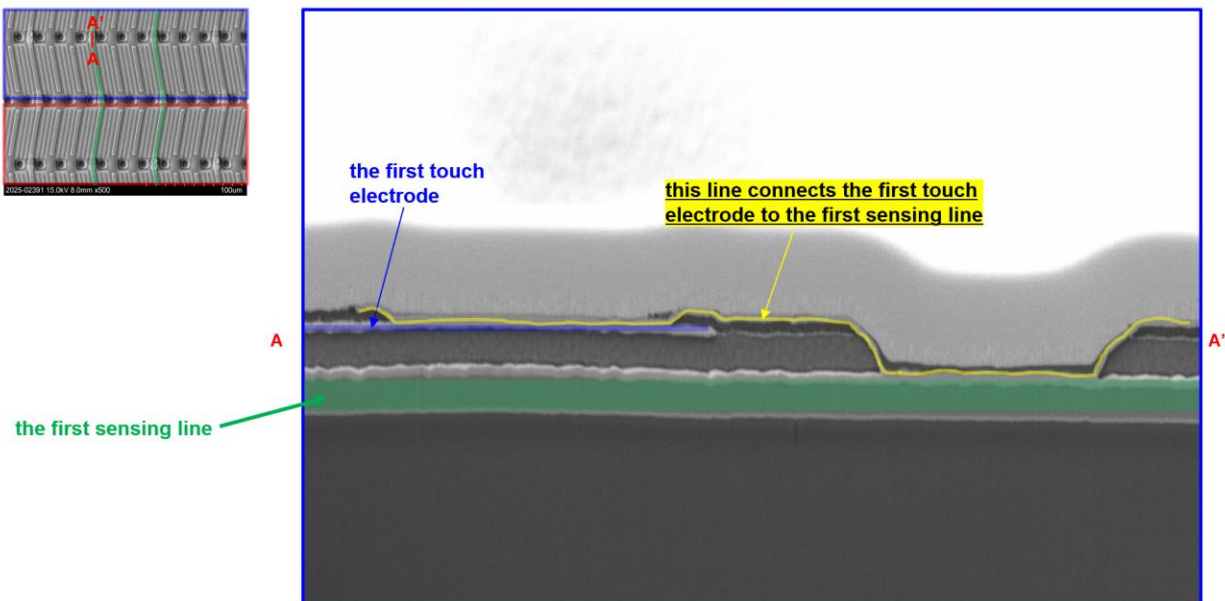
174. The following annotated images from the first touch block including the first touch electrode provides additional evidence of the first touch electrode connected the first sensing line but not connected to the second sensing line.

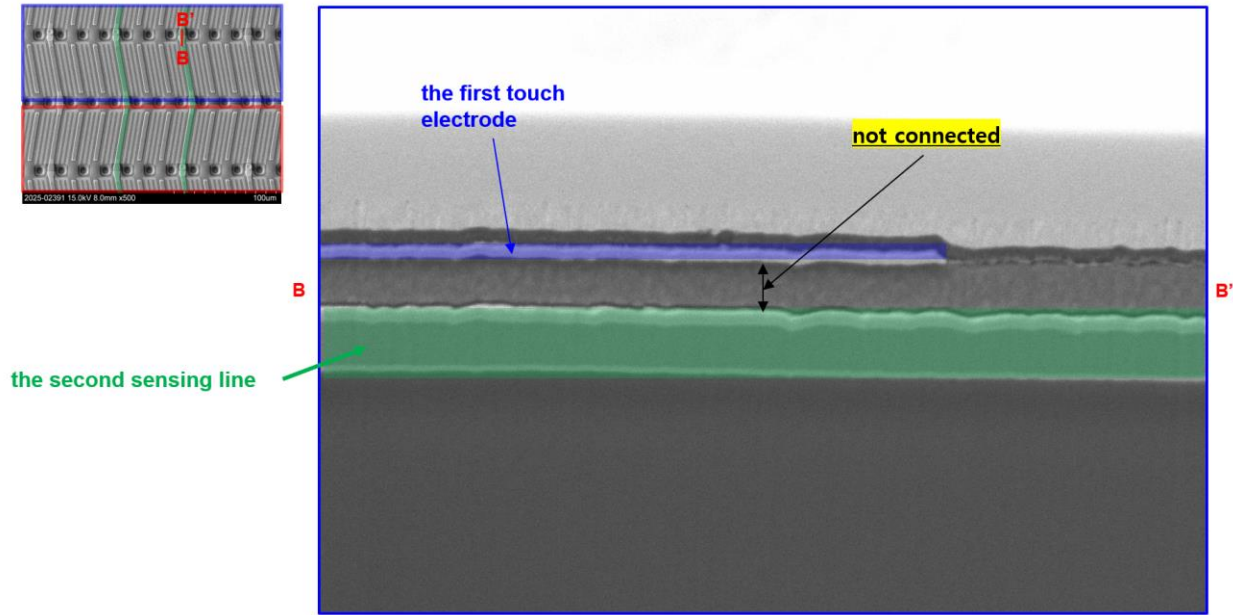


175. The following annotated images from the second touch block including the second touch electrode provides additional evidence of the second touch electrode is connected to the second sensing line but not connected to the first sensing line.

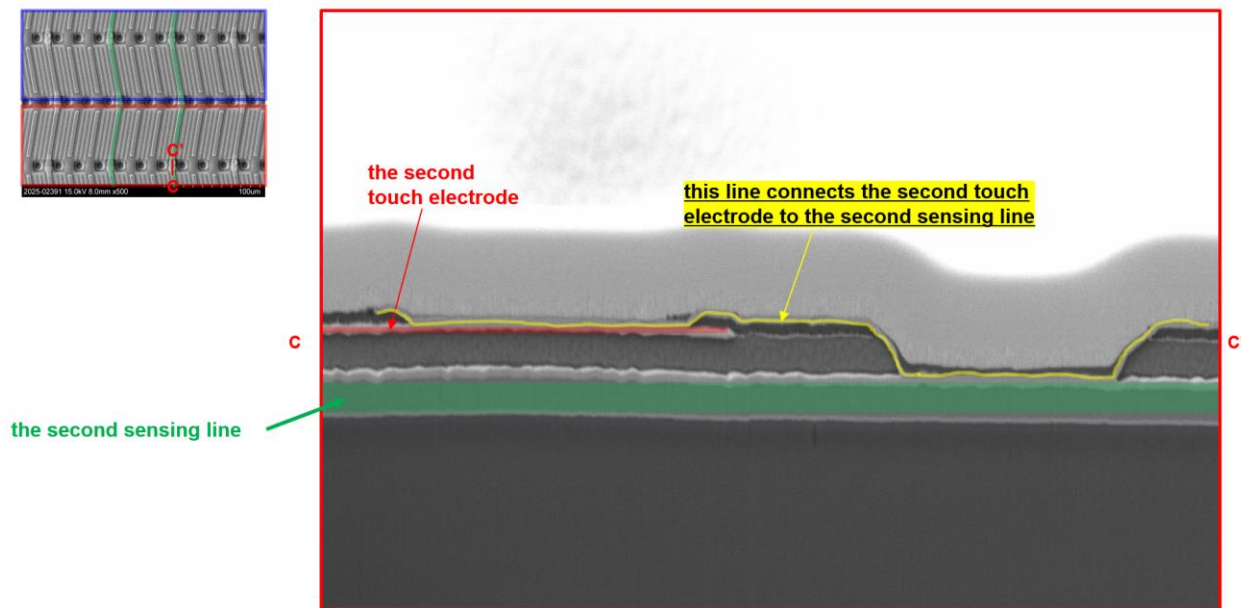


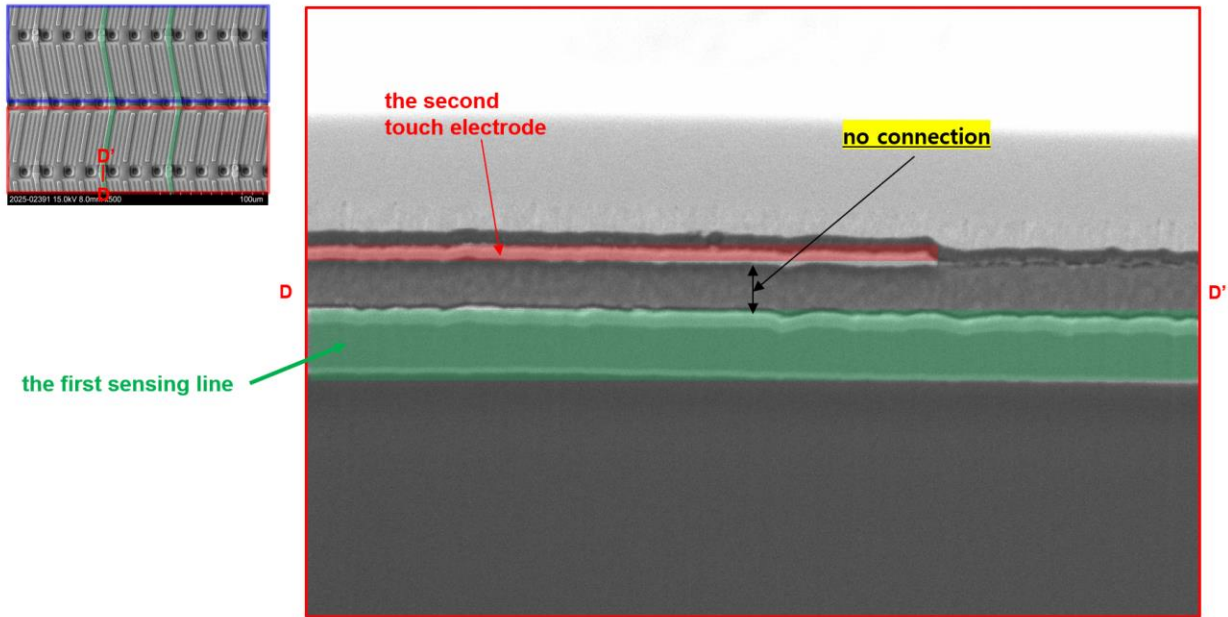
176. The following annotated image provides further evidence that the first touch electrode is connected to the first sensing line but not connected to the second sensing line.





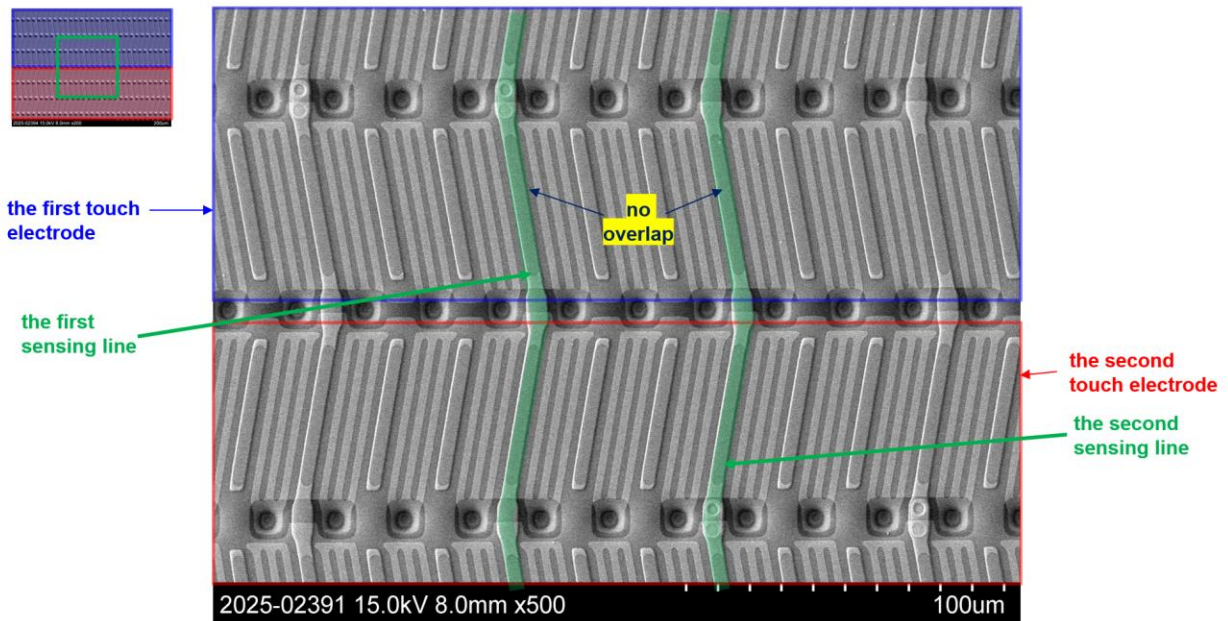
177. The following annotated image provides further evidence that the second touch electrode is connected to the second sensing line but not connected to the first sensing line.





178. In each of the Accused '803 Tianma Products, the first sensing line does not overlap with the second sensing line.

179. For example, in Tianma's LCD display panel in the Moto G Stylus, the first sensing line does not overlap with the second sensing line.



180. The foregoing establishes Tianma's direct infringement of at least claim 1 of the '803 Patent under 35 U.S.C. § 271(a).

181. In addition, Tianma has indirectly infringed, and on information and belief intends to continue to indirectly infringe including after the filing of this complaint, at least claim 1 of the '803 Patent by, among other things, actively inducing its customers and affiliates to make, use, sell, and/or offer to sell and/or to import at least the Accused '803 Tianma Products. Tianma committed these acts of inducement with knowledge of the '803 Patent and its infringement thereof, as described earlier. Thus, Tianma is further liable for infringement of the '803 Patent pursuant to 35 U.S.C. § 271(b).

182. Tianma has also contributorily infringed, and on information and belief intends to continue to indirectly infringe including after the filing of this complaint, the '803 Patent. For example, the Accused '803 Tianma Products include hardware that by its arrangement at least meets all elements of claim 1. These are components of a patented machine, manufacture, or combination. Further, these components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Tianma is also liable for infringement of the '803 Patent pursuant to 35 U.S.C. § 271(c).

183. Unless and until enjoined by this Court, Tianma will continue to infringe as well as induce and contribute to infringement of the '803 Patent. Tianma's infringing acts are causing and will continue to cause LG Display irreparable harm, for which there is no adequate remedy at law. Under 35 U.S.C. § 283, LG Display is entitled to a permanent injunction against further infringement.

184. Tianma had notice of the '803 Patent and details of Tianma's infringement thereof at least as of October 28, 2021, upon receiving LG Display's claim chart during negotiations.

185. By the time of trial, Tianma will thus have known and intended (since receiving this notice) that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '803 Patent.

186. Tianma undertook and continued its infringing actions despite an objectively high likelihood that it infringed the '803 Patent, which has been duly issued by the USPTO, and is presumed valid. On information and belief, Tianma could not reasonably, subjectively believe that its actions do not constitute infringement of the '803 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Tianma continued its infringing activities with knowledge of the '803 Patent. As such, Tianma has willfully infringed and continue to willfully infringe the '803 Patent.

187. LG Display has been and continues to be damaged by Tianma's infringement of the '803 Patent.

**COUNT 4 – INFRINGEMENT OF U.S. PATENT NO. 10,444,924**

188. LG Display incorporates all prior paragraphs here by reference.

189. U.S. Patent No. 10,444,924 (the "'924 Patent") duly issued on October 15, 2019, and is entitled *Touch Display Apparatus*.

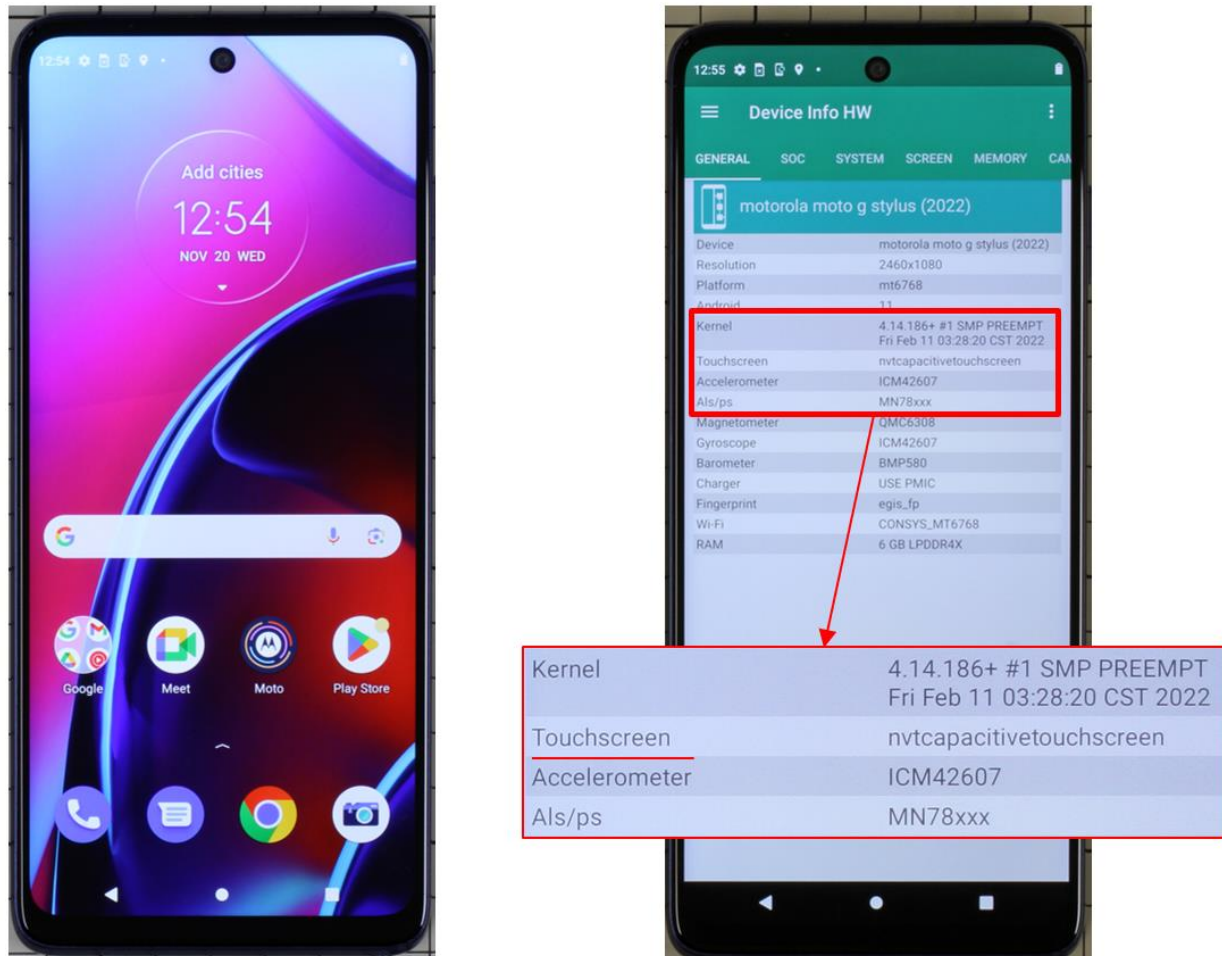
190. The '924 Patent claims priority to KR 10-2015-0015517, filed on January 30, 2015.

191. LG Display is the owner by assignment of the '924 Patent and possesses all rights under the '924 Patent, including the exclusive right to recover for past and future infringement.

192. Tianma has directly infringed at least claim 1 of the '924 Patent, literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its LCD display panels, including the Accused Mobile LCD Tianma Products.

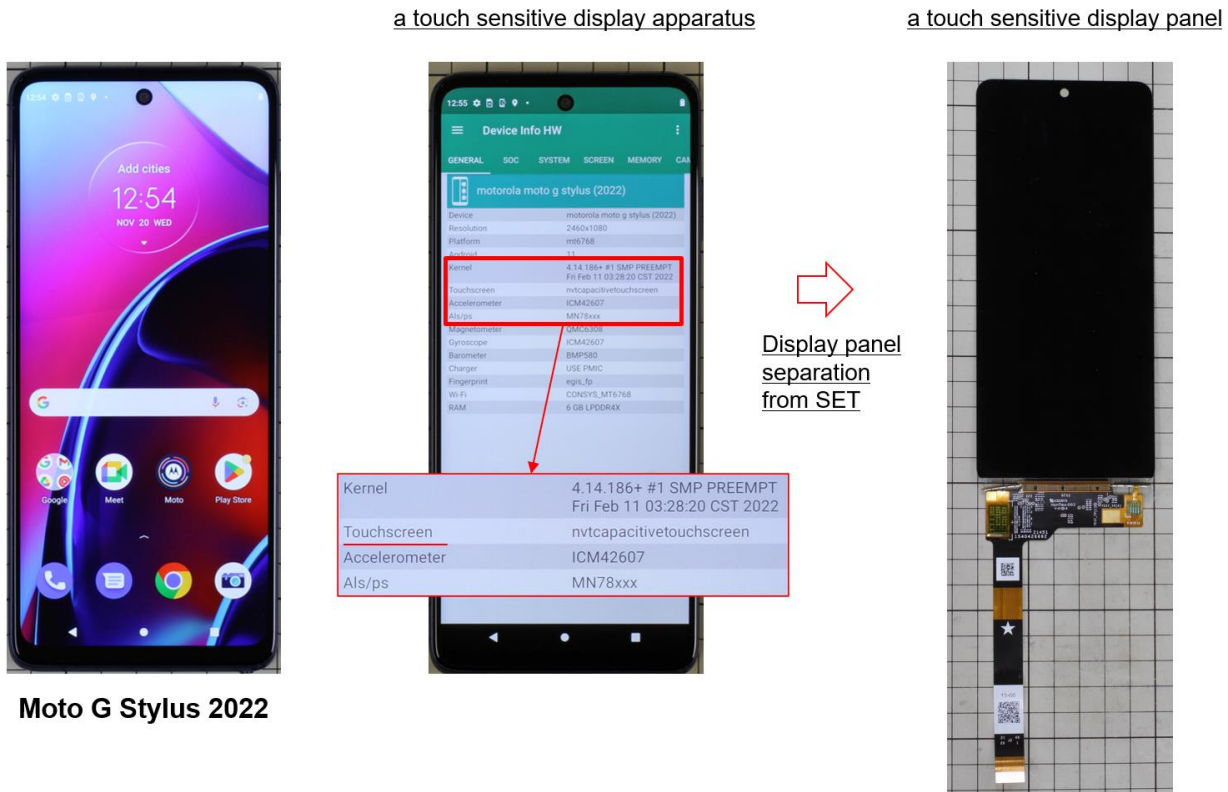
193. Each of the Accused '924 Tianma Products is or includes a touch sensitive display apparatus.

194. For example, Tianma's LCD display panel in the Moto G Stylus is or includes a touch sensitive display apparatus.



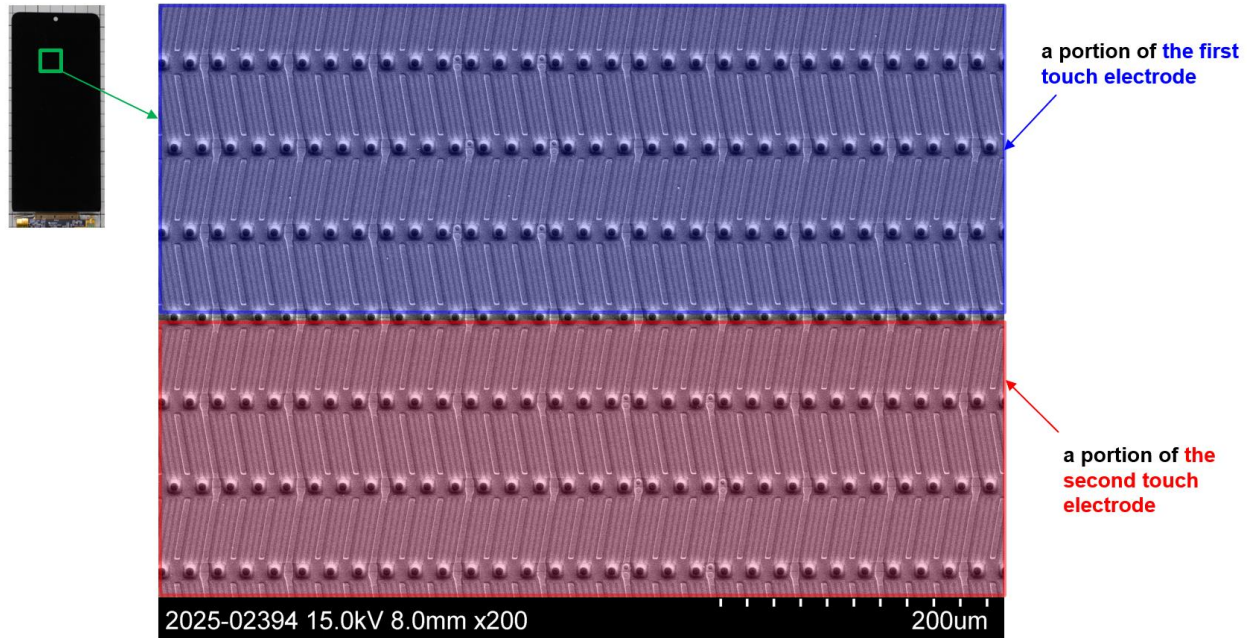
195. Each of the Accused '924 Tianma Products includes a touch sensitive display panel.

196. For example, Tianma's LCD display panel in the Moto G Stylus includes a touch sensitive display panel.



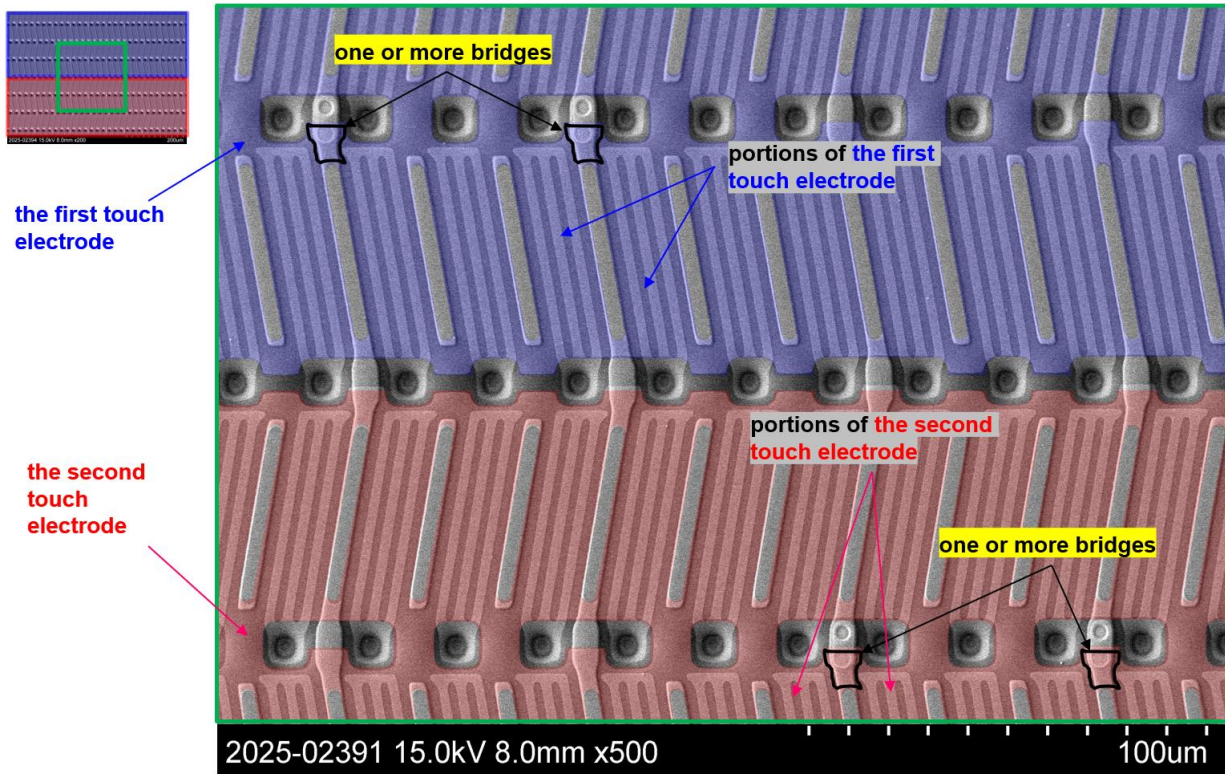
197. Each of the Accused '924 Tianma Products includes a plurality of touch electrodes comprising at least a first touch electrode and a second touch electrode adjacent to the first touch electrode.

198. For example, Tianma's LCD display panel in the Moto G Stylus includes a plurality of touch electrodes comprising at least a first touch electrode and a second touch electrode adjacent to the first touch electrode.



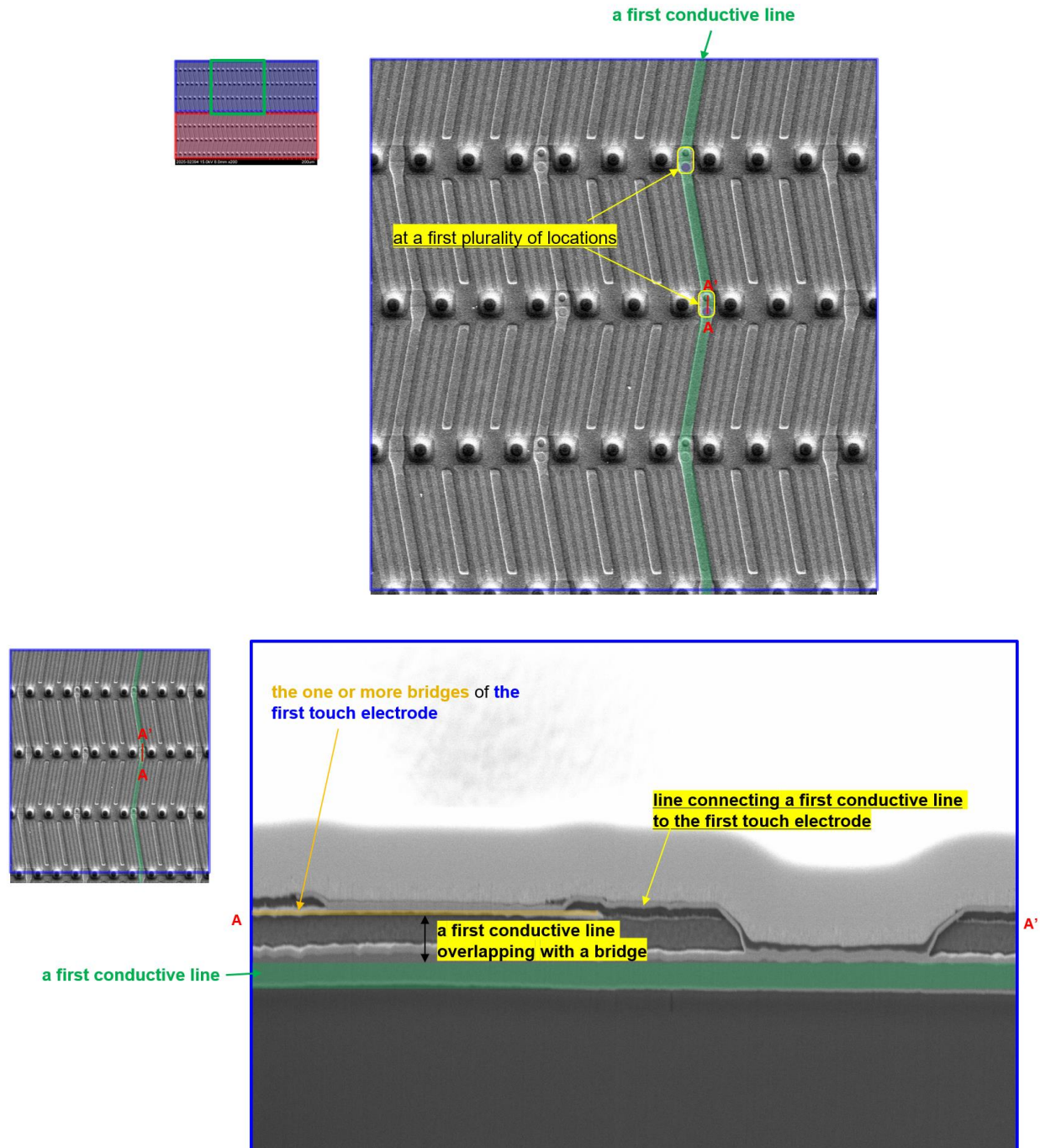
199. Each of the Accused '924 Tianma Products includes the first touch electrode including one or more bridges each connecting portions of the first touch electrode to each other, and the second touch electrode including one or more bridges each connecting portions of the second touch electrode to each other.

200. For example, Tianma's LCD display panel in the Moto G Stylus includes the first touch electrode including one or more bridges each connecting portions of the first touch electrode to each other, and the second touch electrode including one or more bridges each connecting portions of the second touch electrode to each other.



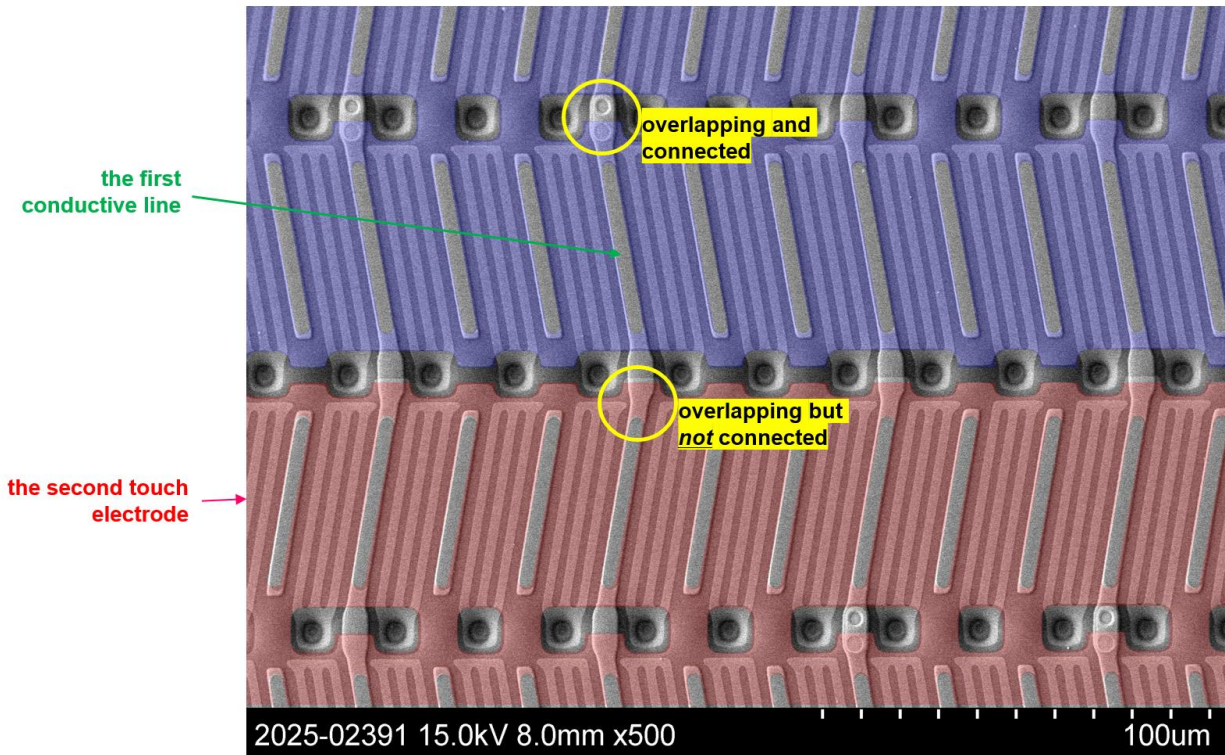
201. Each of the Accused '924 Tianma Products includes a first conductive line connected to the first touch electrode at a first plurality of locations and overlapping with the one or more bridges of the first touch electrode.

202. For example, Tianma's LCD display panel in the Moto G Stylus includes a first conductive line connected to the first touch electrode at a first plurality of locations and overlapping with the one or more bridges of the first touch electrode.



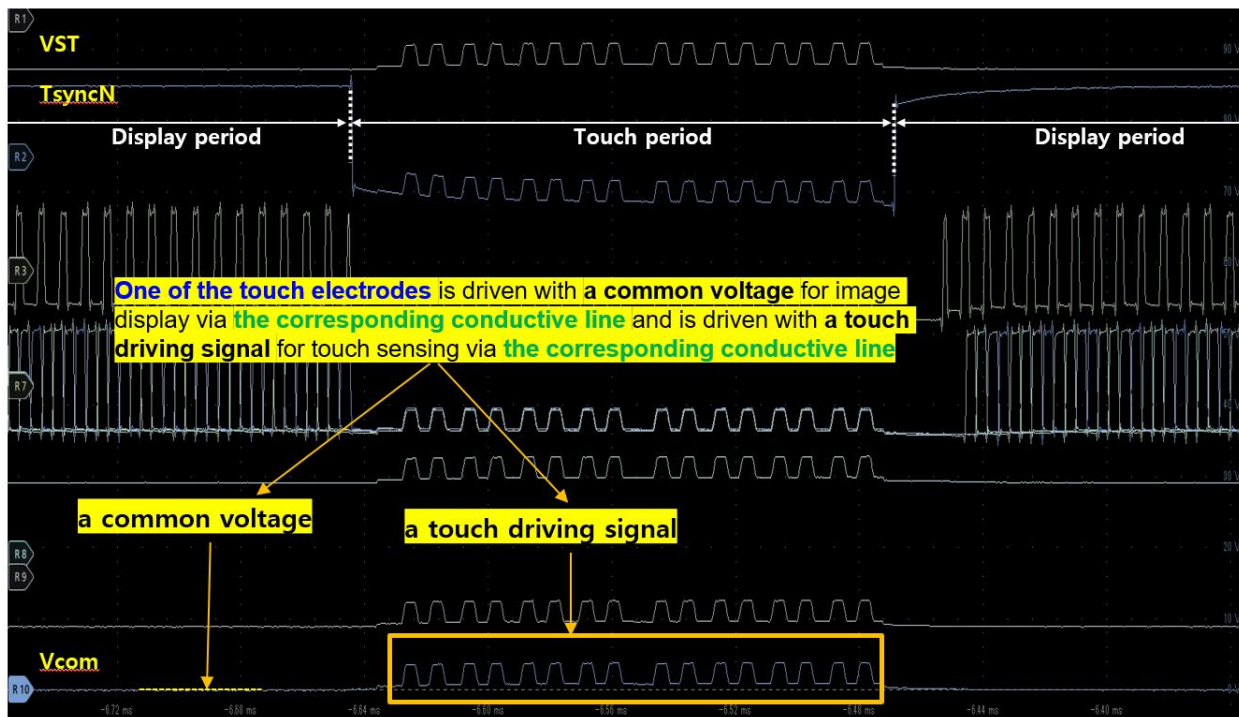
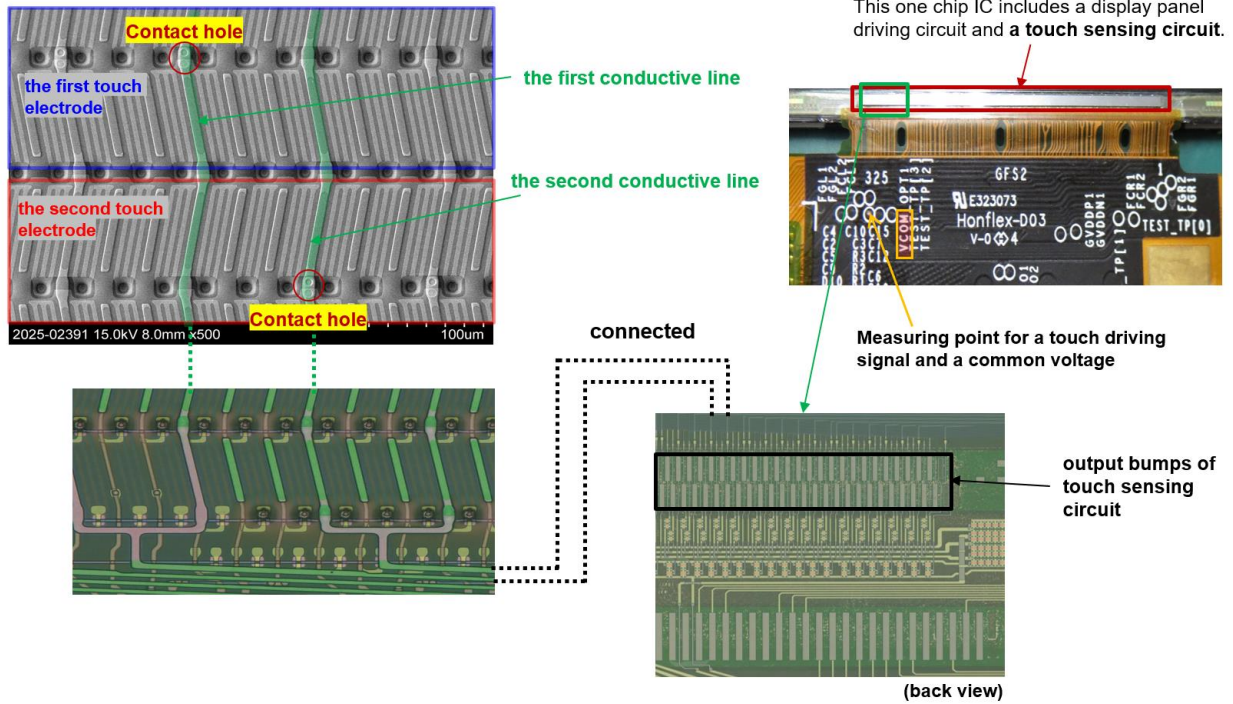
203. Each of the Accused '924 Tianma Products includes the first conductive line overlapping with the second touch electrode but not being connected to the second touch electrode.

204. For example, Tianma's LCD display panel in the Moto G Stylus includes the first conductive line overlapping with the second touch electrode but not being connected to the second touch electrode.



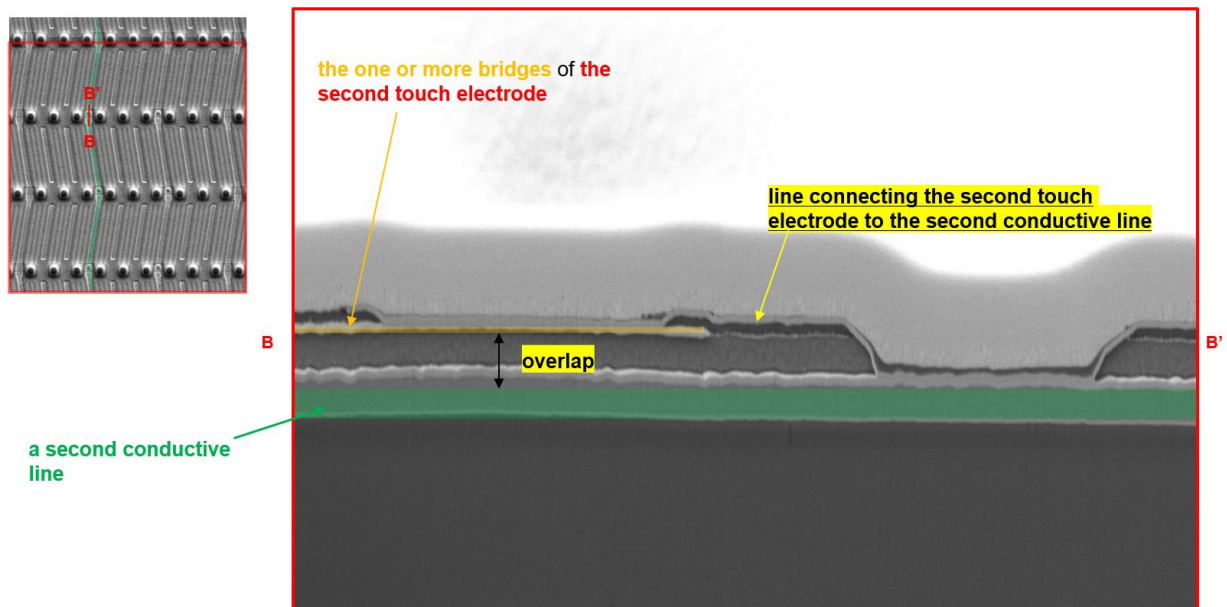
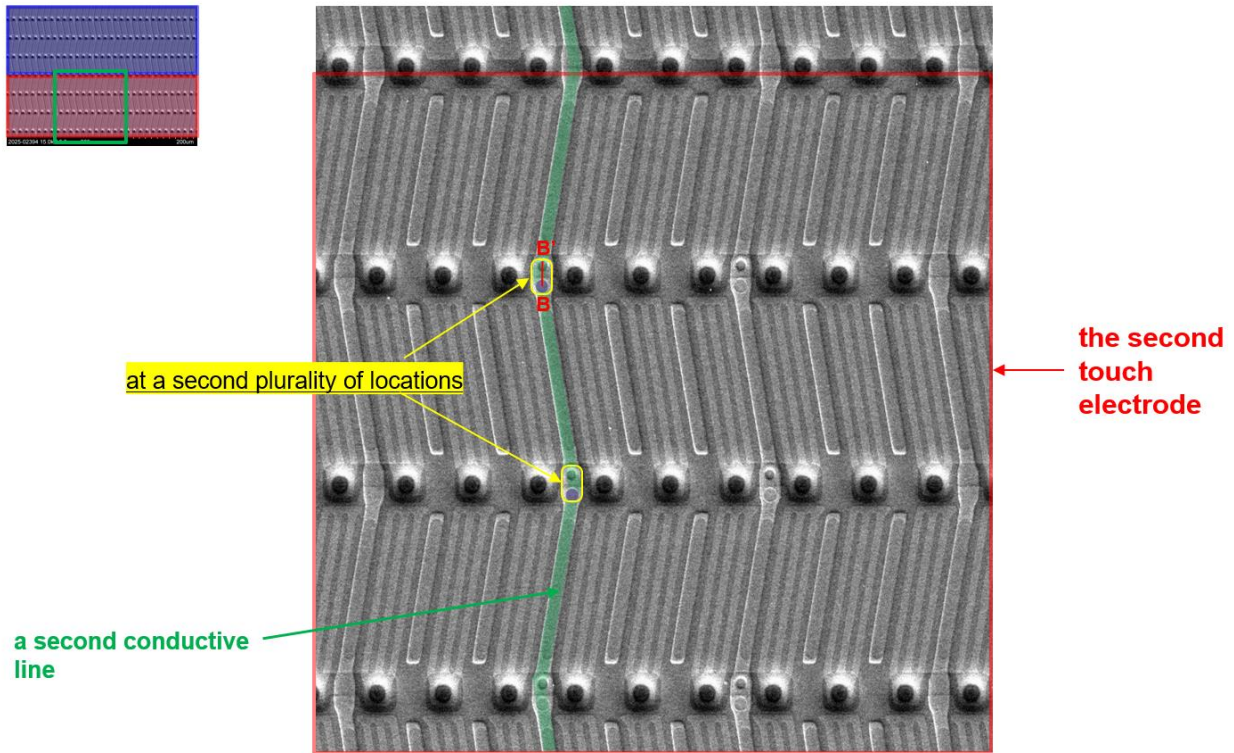
205. Each of the Accused '924 Tianma Products includes the first touch electrode driven with the common voltage for image display via the first conductive line and driven with the touch driving signal for touch sensing via the first conductive line.

206. For example, Tianma's LCD display panel in the Moto G Stylus includes the first touch electrode driven with the common voltage for image display via the first conductive line and driven with the touch driving signal for touch sensing via the first conductive line.



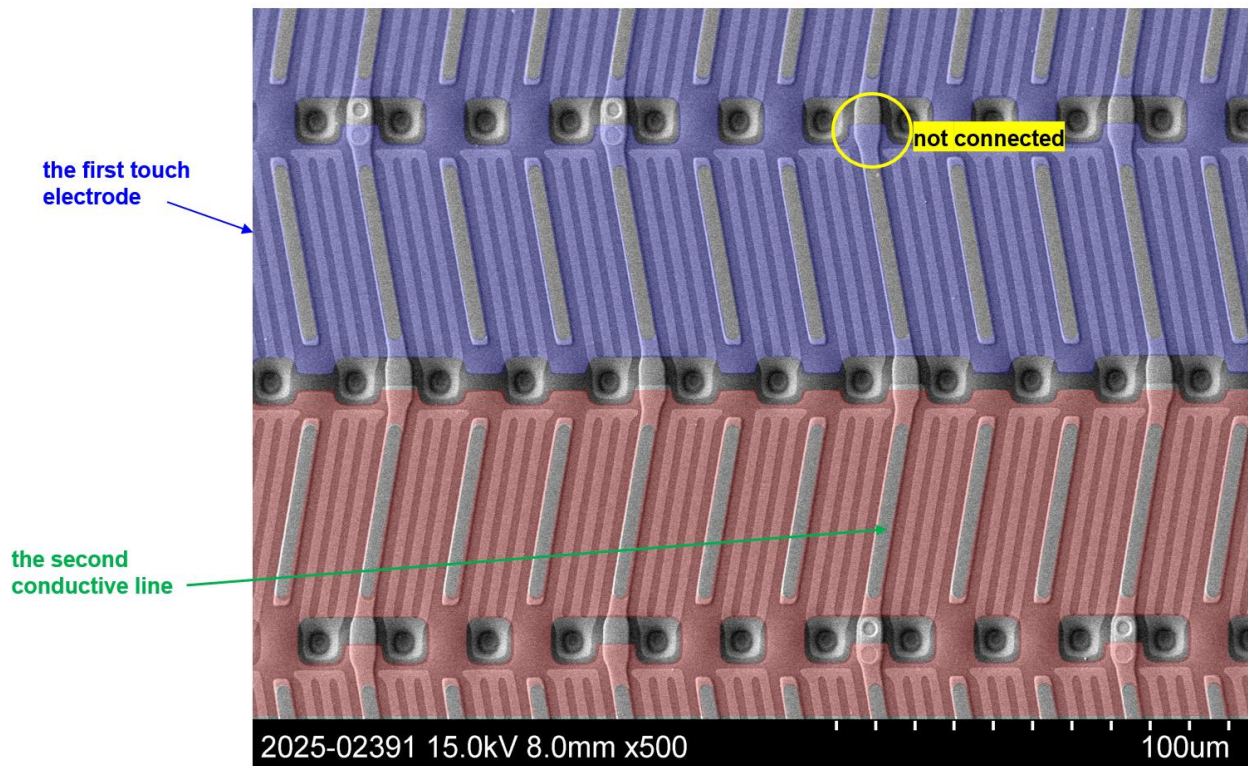
207. Each of the Accused '924 Tianma Products includes a second conductive line connected to the second touch electrode at a second plurality of locations and overlapping with the one or more bridges of the second touch electrode.

208. For example, Tianma's LCD display panel in the Moto G Stylus includes a second conductive line connected to the second touch electrode at a second plurality of locations and overlapping with the one or more bridges of the second touch electrode.



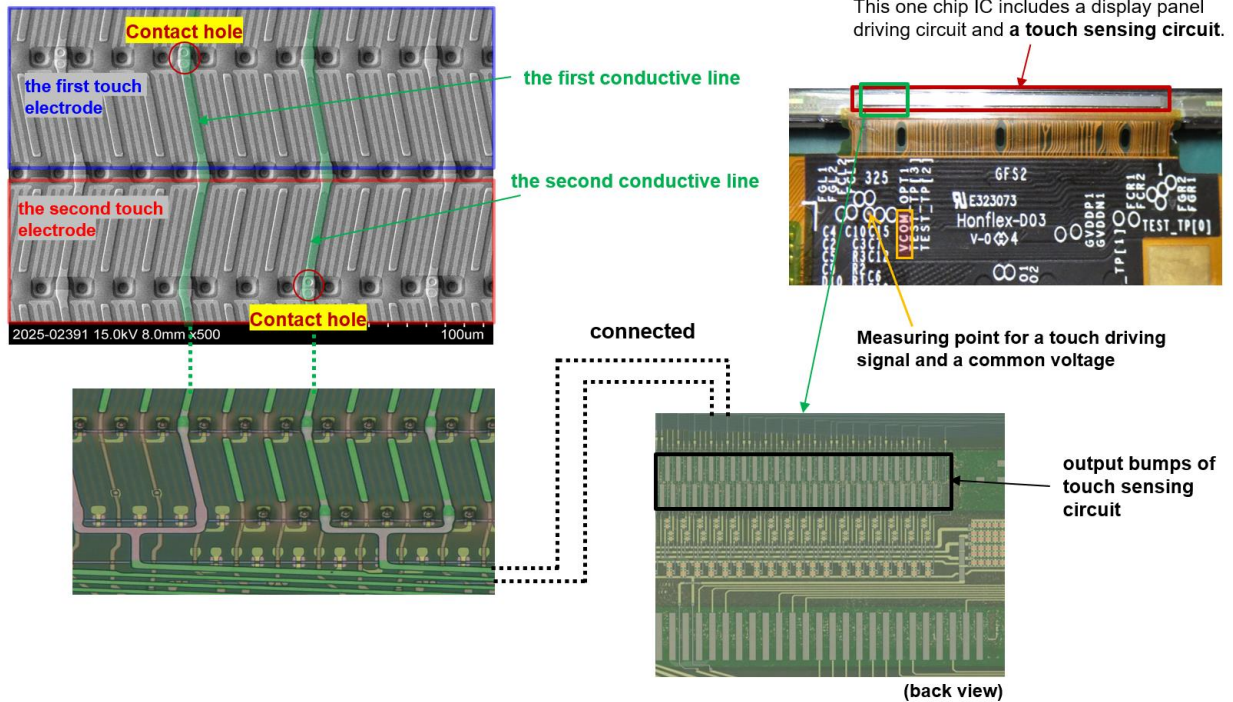
209. In each of the Accused '924 Tianma Products, the second conductive line is not connected to the first touch electrode.

210. For example, in Tianma's LCD display panel in the Moto G Stylus, the second conductive line is not connected to the first touch electrode.



211. Each of the Accused '924 Tianma Products includes the second touch electrode driven with the common voltage for image display via the second conductive line and driven with the touch driving signal for touch sensing via the second conductive line.

212. For example, Tianma's LCD display panel in the Moto G Stylus includes the second touch electrode driven with the common voltage for image display via the second conductive line and driven with the touch driving signal for touch sensing via the second conductive line.



213. The foregoing establishes Tianma’s direct infringement of at least claim 1 of the ’924 Patent under 35 U.S.C. § 271(a).

214. In addition, Tianma has indirectly infringed, and on information and belief intends to continue to indirectly infringe including after the filing of this complaint, at least claim 1 of the ’924 Patent by, among other things, actively inducing its customers and affiliates to make, use, sell, and/or offer to sell and/or to import at least the Accused ’924 Tianma Products. Tianma committed these acts of inducement with knowledge of the ’924 Patent and its infringement thereof, as described earlier. Thus, Tianma is further liable for infringement of the ’924 Patent pursuant to 35 U.S.C. § 271(b).

215. Tianma has also contributorily infringed the ’924 Patent. For example, the Accused ’924 Tianma Products include hardware that by its arrangement at least meets all elements of claim 1. These are components of a patented machine, manufacture, or combination. Further, these components are a material part of the invention and upon information and belief are not a

staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Tianma is also liable for infringement of the '924 Patent pursuant to 35 U.S.C. § 271(c).

216. Unless and until enjoined by this Court, Tianma will continue to infringe as well as induce and contribute to infringement of the '924 Patent. Tianma's infringing acts are causing and will continue to cause LG Display irreparable harm, for which there is no adequate remedy at law. Under 35 U.S.C. § 283, LG Display is entitled to a permanent injunction against further infringement.

217. Tianma had notice of the '924 Patent and details of Tianma's infringement thereof at least as of October 28, 2021, upon receiving LG Display's claim chart during negotiations.

218. By the time of trial, Tianma will thus have known and intended (since receiving this notice) that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '924 Patent.

219. Tianma undertook and continued its infringing actions despite an objectively high likelihood that it infringed the '924 Patent, which has been duly issued by the USPTO, and is presumed valid. On information and belief, Tianma could not reasonably, subjectively believe that its actions do not constitute infringement of the '924 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Tianma continued its infringing activities with knowledge of the '924 Patent. As such, Tianma has willfully infringed and continue to willfully infringe the '924 Patent.

220. LG Display has been and continues to be damaged by Tianma's infringement of the '924 Patent.

**COUNT 5 – INFRINGEMENT OF U.S. PATENT NO. 10,499,493**

221. LG Display incorporates all prior paragraphs here by reference.

222. U.S. Patent No. 10,499,493 (the “’493 Patent”) duly issued on December 3, 2019, and is entitled Flexible Display Device and Method of Manufacturing the Same.

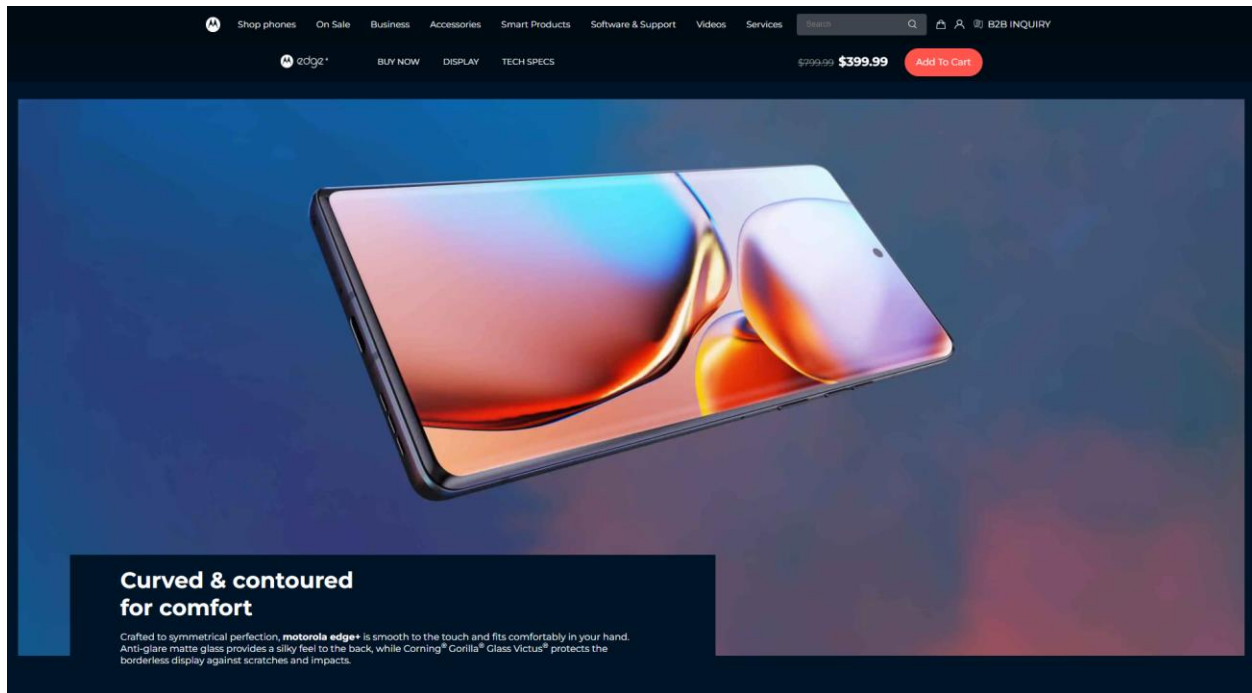
223. The ’493 Patent claims priority to KR 10-2013-0039488, filed on April 10, 2013.

224. LG Display is the owner by assignment of the ’493 Patent and possesses all rights under the ’493 Patent, including the exclusive right to recover for past and future infringement.

225. Tianma has directly infringed at least claim 9 of the ’493 Patent, literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its OLED display panels, including the Accused Mobile OLED Tianma Products.

226. Each of the Accused ’493 Tianma Products is or includes a flexible display device.

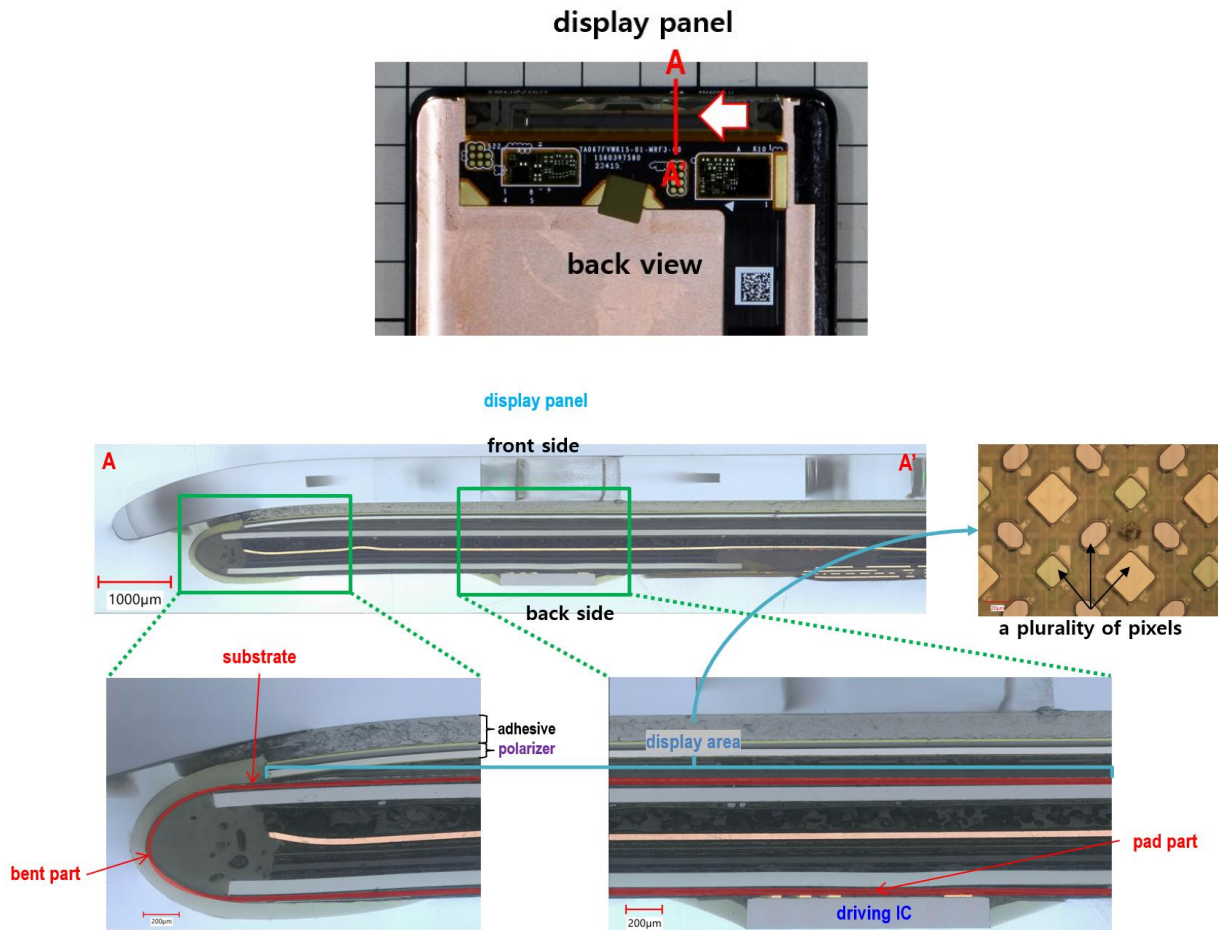
227. For example, Tianma’s OLED display panel in the Motorola edge+ is or includes a flexible display device.



<https://perma.cc/3TMJ-SNGF>

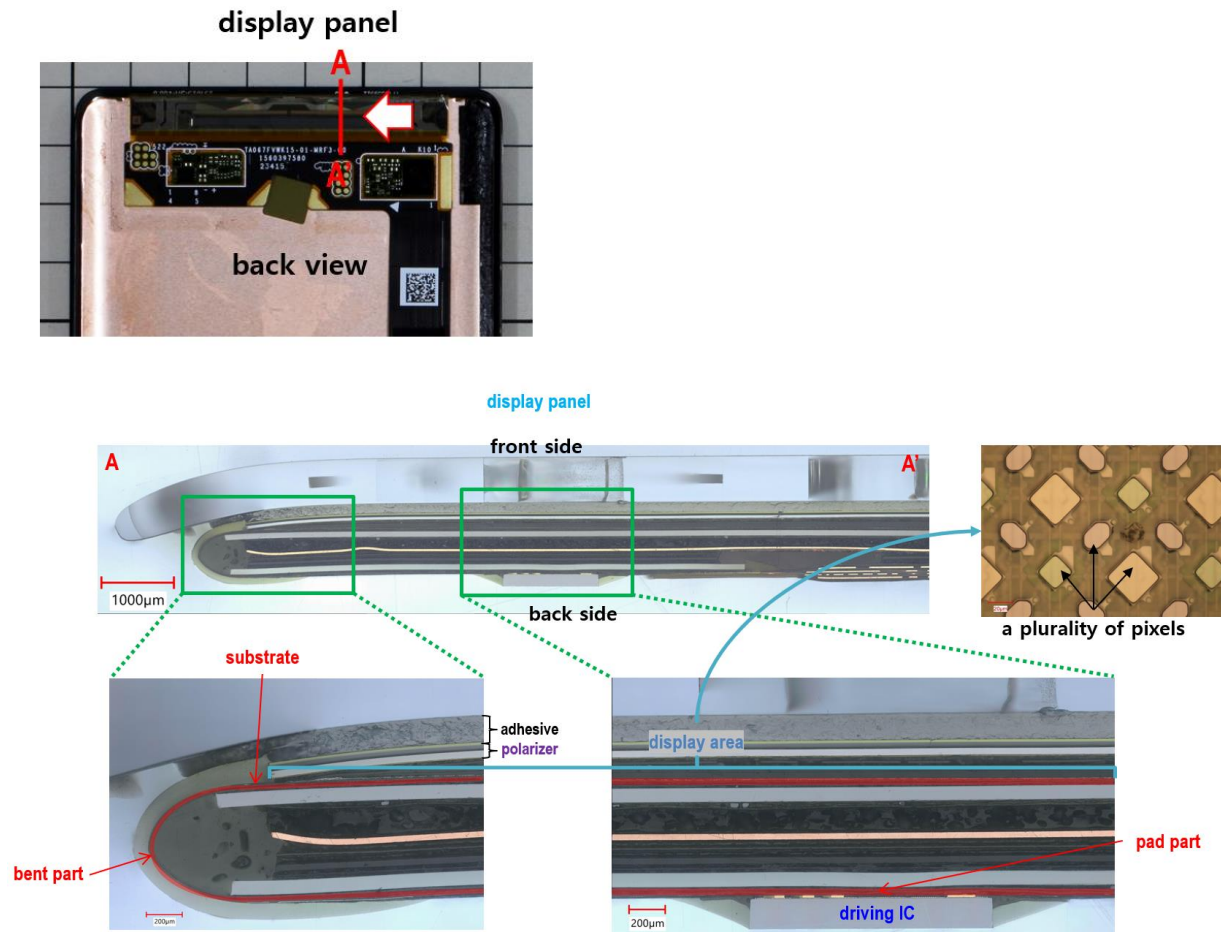
228. Each of the Accused '493 Tianma Products includes a display panel including a substrate, the substrate having a display area including a plurality of pixels to display images, a bent part extending from the display area, and a pad part extending from the bent part.

229. For example, Tianma's OLED display panel in the Motorola edge+ includes a display panel including a substrate, the substrate having a display area including a plurality of pixels to display images, a bent part extending from the display area, and a pad part extending from the bent part.



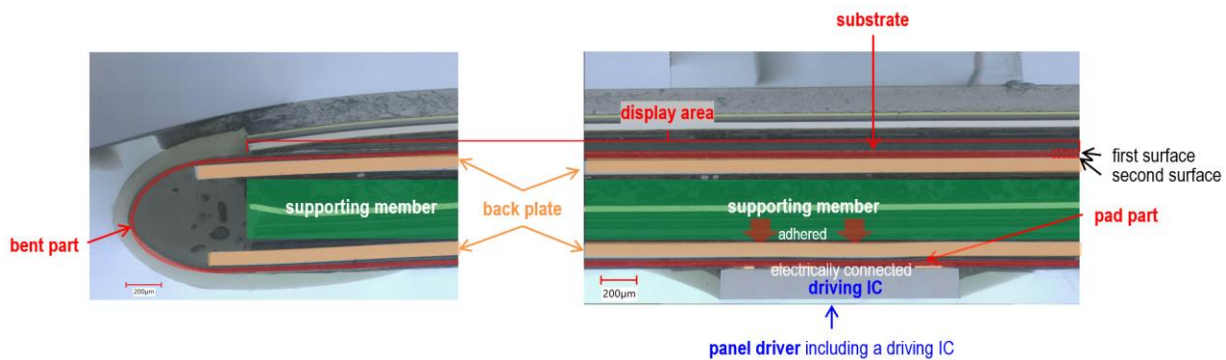
230. Each of the Accused '493 Tianma Products includes a panel driver including at least one driving IC that is electrically connected to the pad part of the substrate to supply signals to the display panel.

231. For example, Tianma's OLED display panel in the Motorola edge+ includes a panel driver including at least one driving IC that is electrically connected to the pad part of the substrate to supply signals to the display panel.



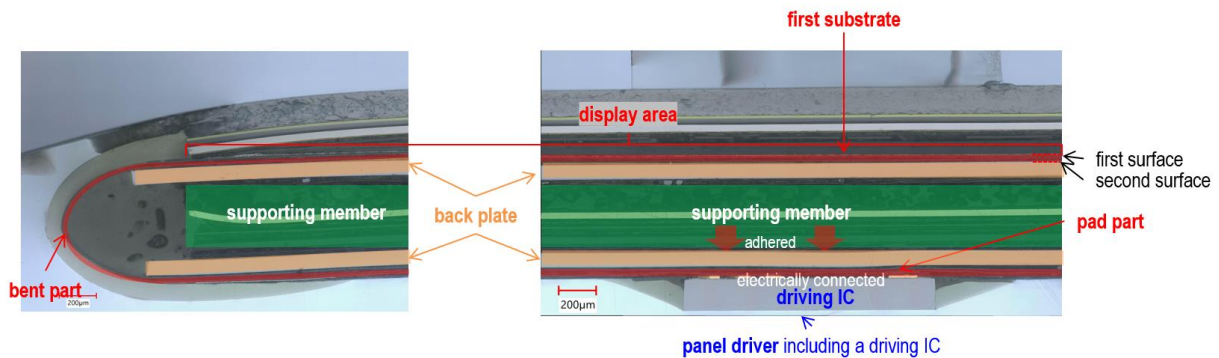
232. Each of the Accused '493 Tianma Products includes a supporting member disposed below the display area and adhered to the pad part or the bent part of the substrate.

233. For example, Tianma's OLED display panel in the Motorola edge+ includes a supporting member disposed below the display area and adhered to the pad part or the bent part of the substrate.



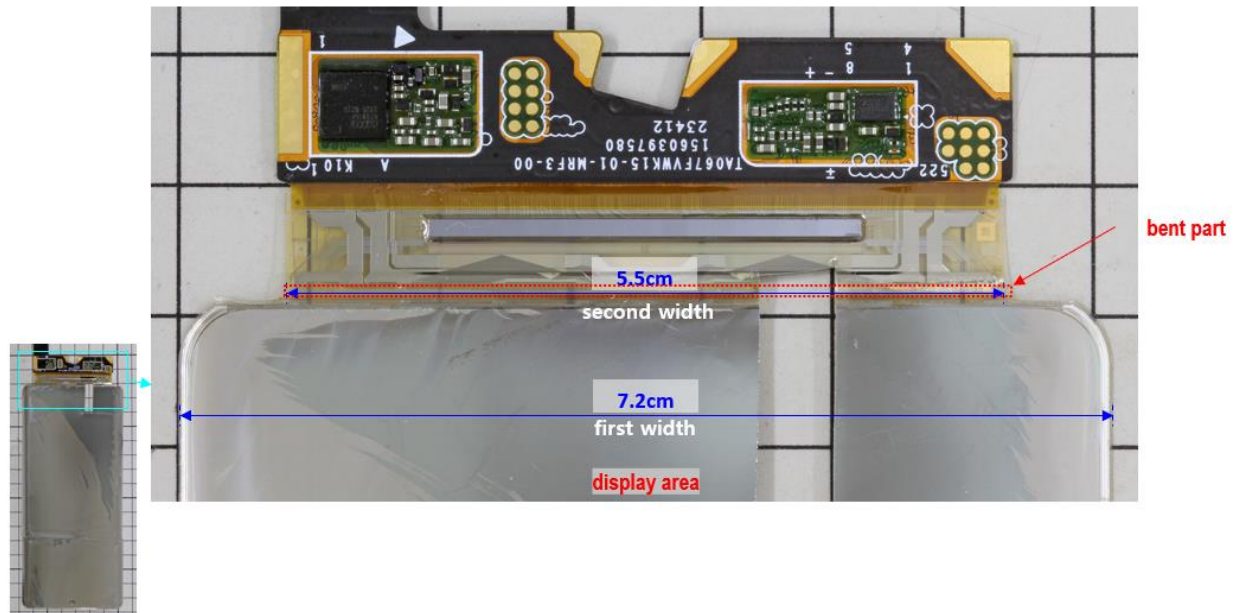
234. In each of the Accused '493 Tianma Products, the substrate including first and second surfaces is curved at the bent part of the substrate such that the pad part of the substrate and the panel driver are disposed below the display area and the supporting member.

235. For example, in Tianma's OLED display panel in the Motorola edge+, the substrate including first and second surfaces is curved at the bent part of the substrate such that the pad part of the substrate and the panel driver are disposed below the display area and the supporting member.



236. In each of the Accused '493 Tianma Products, the substrate in the display area has a first width, and the substrate in the bent part has a second width smaller than the first width.

237. For example, in Tianma's OLED display panel in the Motorola edge+, the substrate in the display area has a first width, and the substrate in the bent part has a second width smaller than the first width.



238. The foregoing establishes Tianma's direct infringement of at least claim 9 of the '493 Patent under 35 U.S.C. § 271(a).

239. In addition, Tianma has indirectly infringed, and on information and belief intends to continue to indirectly infringe including after the filing of this complaint, at least claim 9 of the '493 Patent by, among other things, actively inducing its customers and affiliates to make, use, sell, and/or offer to sell and/or to import at least the Accused '493 Tianma Products. Tianma committed these acts of inducement with knowledge of the '493 Patent and its infringement thereof, as described earlier. Thus, Tianma is further liable for infringement of the '493 Patent pursuant to 35 U.S.C. § 271(b).

240. Tianma has also contributorily infringed, and on information and belief intends to continue to indirectly infringe including after the filing of this complaint, the '493 Patent. For

example, the Accused '493 Tianma Products include hardware that by its arrangement at least meets all elements of claim 9. These are components of a patented machine, manufacture, or combination. Further, these components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Tianma is also liable for infringement of the '493 Patent pursuant to 35 U.S.C. § 271(c).

241. Unless and until enjoined by this Court, Tianma will continue to infringe as well as induce and contribute to infringement of the '493 Patent. Tianma's infringing acts are causing and will continue to cause LG Display irreparable harm, for which there is no adequate remedy at law. Under 35 U.S.C. § 283, LG Display is entitled to a permanent injunction against further infringement.

242. Tianma undertook and continued its infringing actions despite objectively high likelihood that they infringed the '493 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least October 29, 2021, Tianma has been aware of an objectively high likelihood that their actions constituted and continue to constitute infringement of the '493 Patent. At minimum, Tianma had notice of the '493 Patent and details of Tianma's infringement thereof at least as of the filing and service of this Complaint.

243. By the time of trial, Tianma will thus have known and intended (since receiving this notice) that its continued actions would actively induce and contribute to actual infringement of at least claim 9 of the '493 Patent.

244. Tianma undertook and continued its infringing actions despite an objectively high likelihood that it infringed the '493 Patent, which has been duly issued by the USPTO, and is presumed valid. On information and belief, Tianma could not reasonably, subjectively believe that its actions do not constitute infringement of the '493 Patent, nor could it reasonably, subjectively

believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Tianma continued its infringing activities with knowledge of the '493 Patent. As such, Tianma has willfully infringed and continue to willfully infringe the '493 Patent.

245. LG Display has been and continues to be damaged by Tianma's infringement of the '493 Patent.

**COUNT 6 – INFRINGEMENT OF U.S. PATENT NO. 10,869,388**

246. LG Display incorporates all prior paragraphs here by reference.

247. U.S. Patent No. 10,869,388 (the "'388 Patent") duly issued on December 15, 2020, and is entitled *Display Device*.

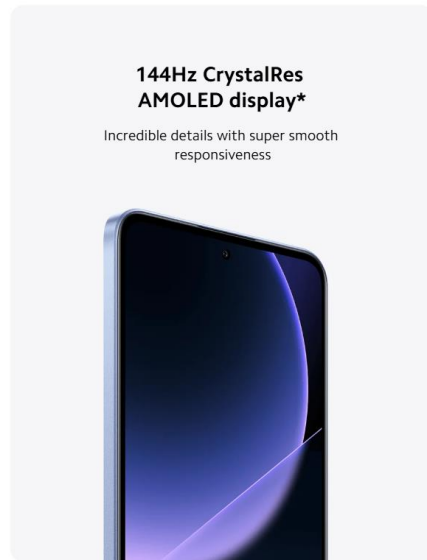
248. The '388 Patent claims priority to KR 10-2013-0090292, filed on July 30, 2013.

249. LG Display is the owner by assignment of the '388 Patent and possesses all rights under the '388 Patent, including the exclusive right to recover for past and future infringement.

250. Tianma has directly infringed at least claim 12 of the '388 Patent, literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its OLED display panels, including at Accused Mobile OLED Tianma Products.

251. Each of the Accused '388 Tianma Products is a display device.

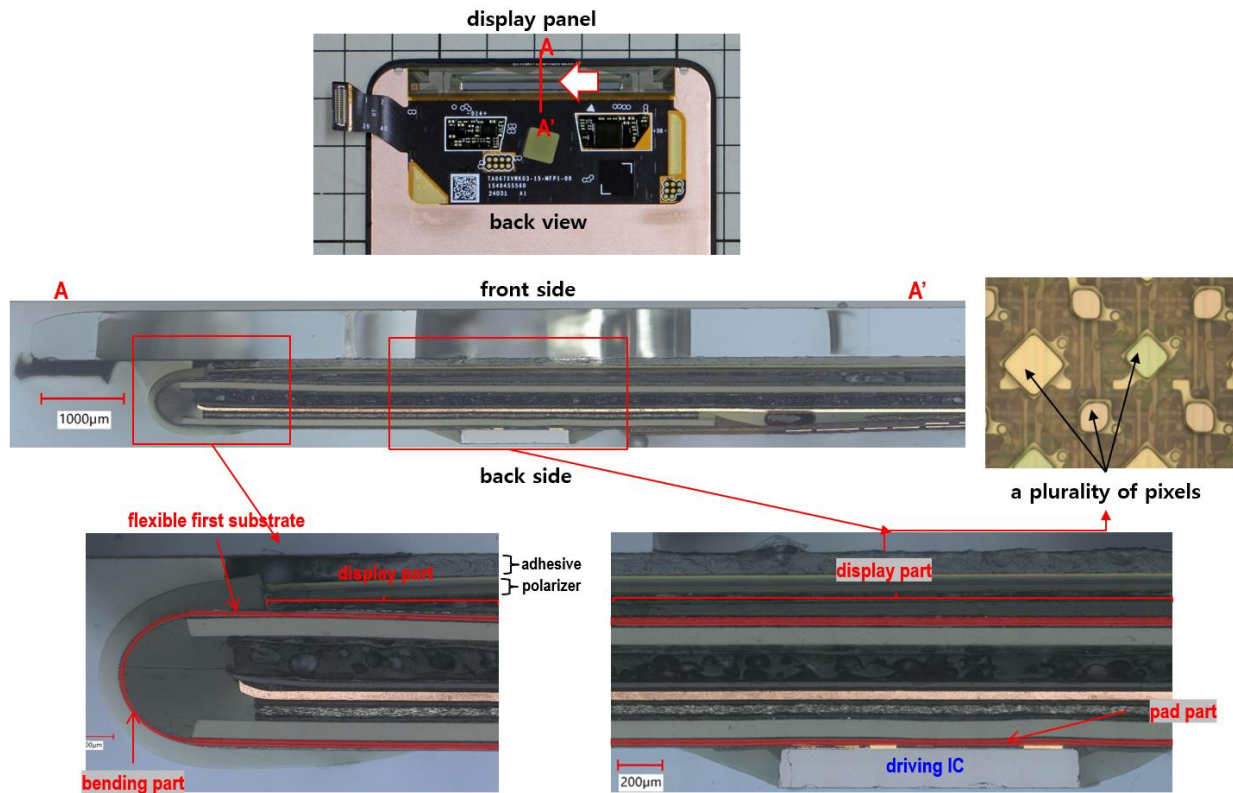
252. For example, Tianma's OLED display panel in the Xiaomi 13T is a display device.



<https://perma.cc/BZ4U-RHZ5>

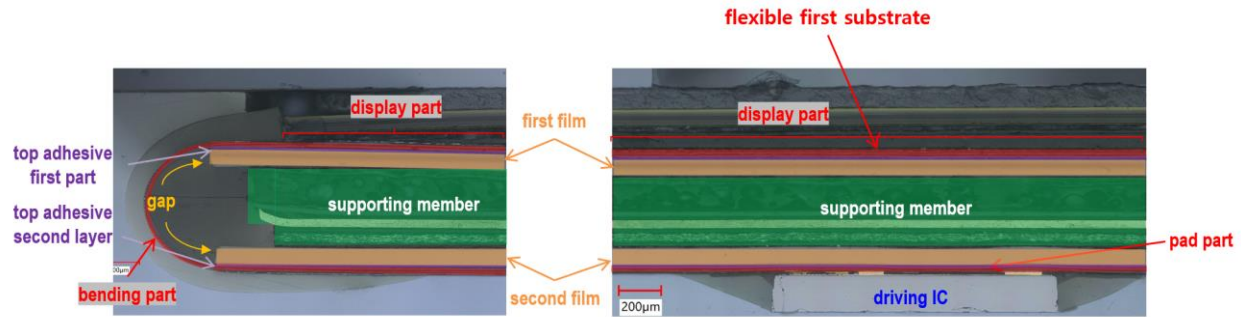
253. Each of the Accused '388 Tianma Products includes a flexible first substrate including a display part, a bending part at one side of the display part, and a pad part at one side of the bending part.

254. For example, Tianma's OLED display device in the Xiaomi 13T includes a flexible first substrate including a display part, a bending part at one side of the display part, and a pad part at one side of the bending part.



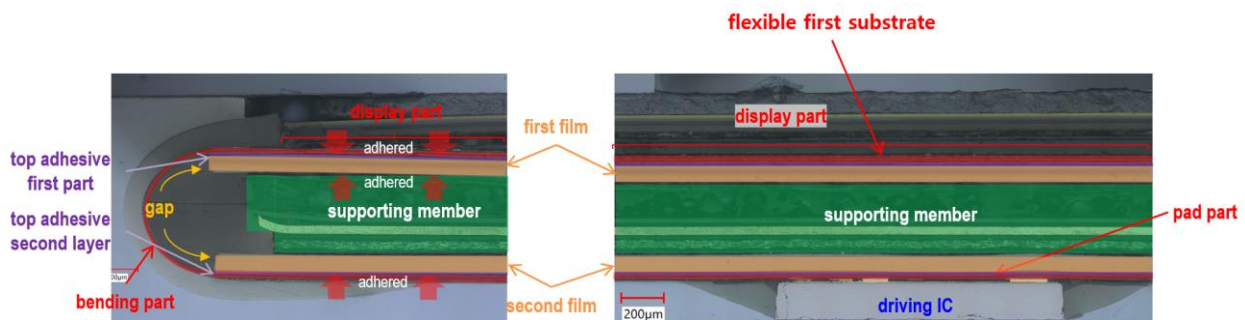
255. Each of the Accused '388 Tianma Products includes a back film including: a first film and a top adhesive first part provided on the first film, a second film and a top adhesive second part provided on the second film, and a gap between the first and second films and between the top adhesive first part and the top adhesive second part.

256. For example, Tianma's OLED display device in the Xiaomi 13T includes a back film including: a first film and a top adhesive first part provided on the first film, a second film and a top adhesive second part provided on the second film, and a gap between the first and second films and between the top adhesive first part and the top adhesive second part.



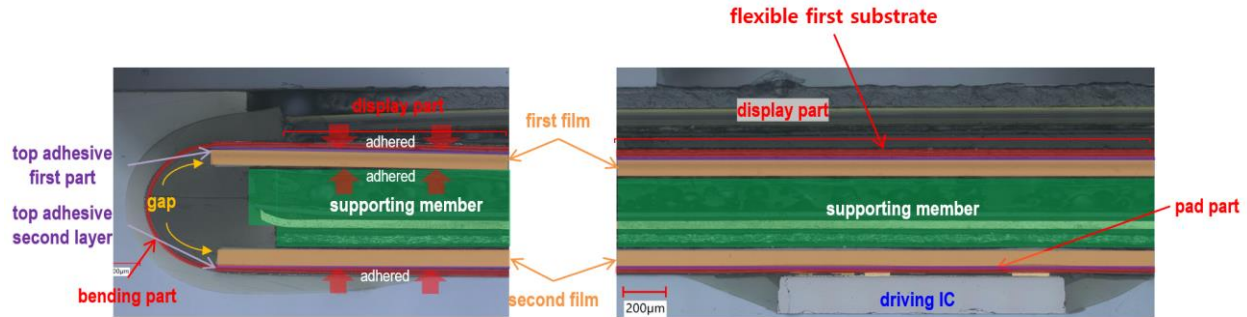
257. In each of the Accused '388 Tianma Products, the flexible first substrate is adhered to the top adhesive first part and the top adhesive second part that the first film corresponds to the display part, the gap corresponds to the bending part, and the second film corresponds to the pad part; and a supporting member adhered to a bottom surface of the first film below the display part.

258. For example, in Tianma's OLED display device in the Xiaomi 13T, the flexible first substrate is adhered to the top adhesive first part and the top adhesive second part that the first film corresponds to the display part, the gap corresponds to the bending part, and the second film corresponds to the pad part; and a supporting member adhered to a bottom surface of the first film below the display part.



259. In each of the Accused '388 Tianma Products, the supporting member is not bent and extends beyond an outer edge of the display part.

260. For example, in Tianma's OLED display device in the Xiaomi 13T, the supporting member is not bent and extends beyond an outer edge of the display part.



261. The foregoing establishes Tianma's direct infringement of at least claim 12 of the '388 Patent under 35 U.S.C. § 271(a).

262. In addition, Tianma has indirectly infringed, and on information and belief intends to continue to indirectly infringe including after the filing of this complaint, at least claim 12 of the '388 Patent by, among other things, actively inducing its customers and affiliates to make, use, sell, and/or offer to sell and/or to import at least the Accused '388 Tianma Products. Tianma committed these acts of inducement with knowledge of the '388 Patent and its infringement thereof, as described earlier. Thus, Tianma is further liable for infringement of the '388 Patent pursuant to 35 U.S.C. § 271(b).

263. Tianma has also contributorily infringed, and on information and belief intends to continue to indirectly infringe including after the filing of this complaint, the '388 Patent. For example, the Accused '388 Tianma Products include hardware that by its arrangement at least meets all elements of claim 12. These are components of a patented machine, manufacture, or combination. Further, these components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Tianma is also liable for infringement of the '388 Patent pursuant to 35 U.S.C. § 271(c).

264. Unless and until enjoined by this Court, Tianma will continue to infringe as well as induce and contribute to infringement of the '388 Patent. Tianma's infringing acts are causing and

will continue to cause LG Display irreparable harm, for which there is no adequate remedy at law. Under 35 U.S.C. § 283, LG Display is entitled to a permanent injunction against further infringement.

265. Tianma undertook and continued its infringing actions despite objectively high likelihood that they infringed the '388 Patent, which has been duly issued by the USPTO, and is presumed valid. For example, since at least October 29, 2021, Tianma has been aware of an objectively high likelihood that their actions constituted and continue to constitute infringement of the '388 Patent. At minimum, Tianma had notice of the '388 Patent and details of Tianma's infringement thereof at least as of the filing and service of this Complaint.

266. By the time of trial, Tianma will thus have known and intended (since receiving this notice) that its continued actions would actively induce and contribute to actual infringement of at least claim 12 of the '388 Patent.

267. Tianma undertook and continued its infringing actions despite an objectively high likelihood that it infringed the '388 Patent, which has been duly issued by the USPTO, and is presumed valid. On information and belief, Tianma could not reasonably, subjectively believe that its actions do not constitute infringement of the '388 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Tianma continued its infringing activities with knowledge of the '388 Patent. As such, Tianma has willfully infringed and continue to willfully infringe the '388 Patent.

268. LG Display has been and continues to be damaged by Tianma's infringement of the '388 Patent.

**COUNT 7 – INFRINGEMENT OF U.S. PATENT NO. 11,251,394**

269. LG Display incorporates all prior paragraphs here by reference.

270. U.S. Patent No. 11,251,394 (the “’394 Patent”) duly issued on February 15, 2022, and is entitled *Organic Light Emitting Display and Method of Fabricating the Same*.

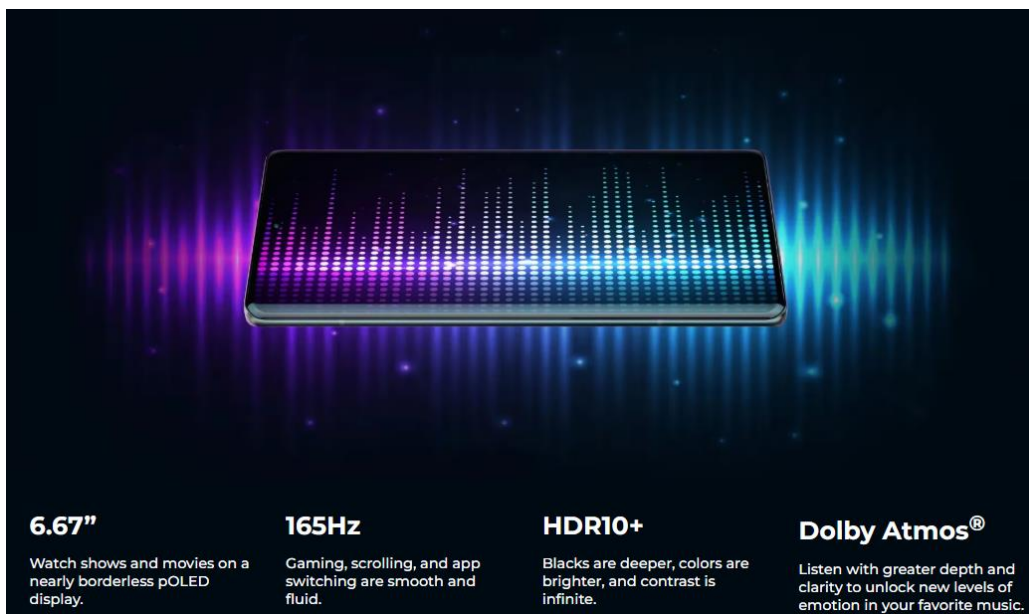
271. The ’394 Patent claims priority to KR 10-2016-0083006, filed on June 30, 2016.

272. LG Display is the owner by assignment of the ’394 Patent and possesses all rights under the ’394 Patent, including the exclusive right to recover for past and future infringement.

273. Tianma has directly infringed at least claim 1 of the ’394 Patent, literally and/or under the doctrine of equivalents, by or through making, using, importing, offering for sale, and/or selling its OLED display panels, including the Accused Mobile OLED Tianma Products.

274. Each of the Accused ’394 Tianma Products is or includes an organic light emitting display.

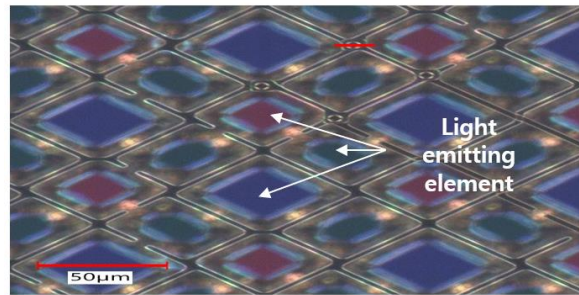
275. For example, Tianma’s OLED display panel in the Motorola edge+ is or includes an organic light emitting display.



<https://perma.cc/3TMJ-SNGF>

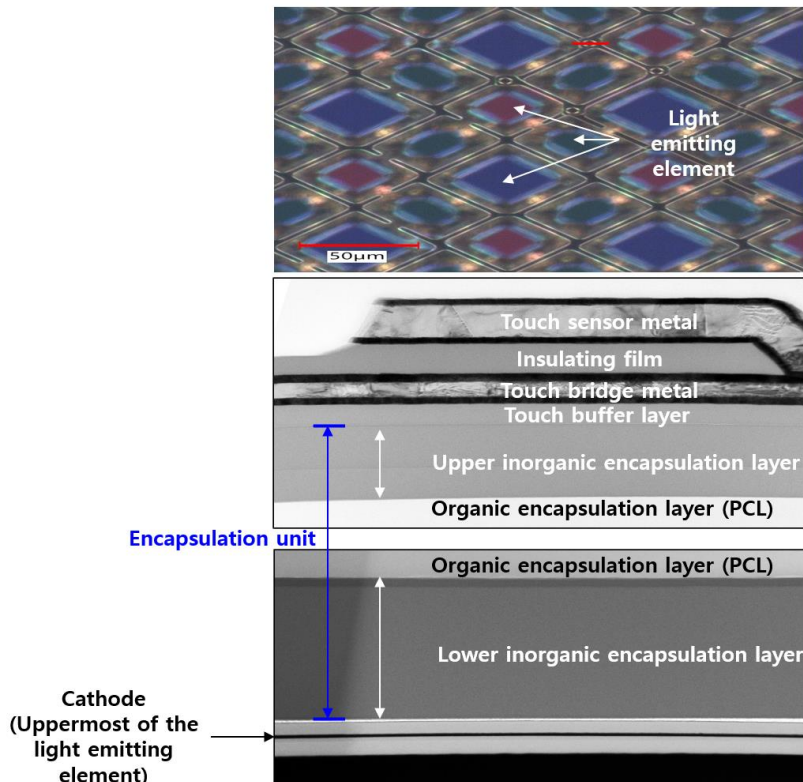
276. Each of the Accused '394 Tianma Products includes light emitting elements disposed on a substrate.

277. For example, Tianma's OLED display panel in the Motorola edge+ includes light emitting elements disposed on a substrate.



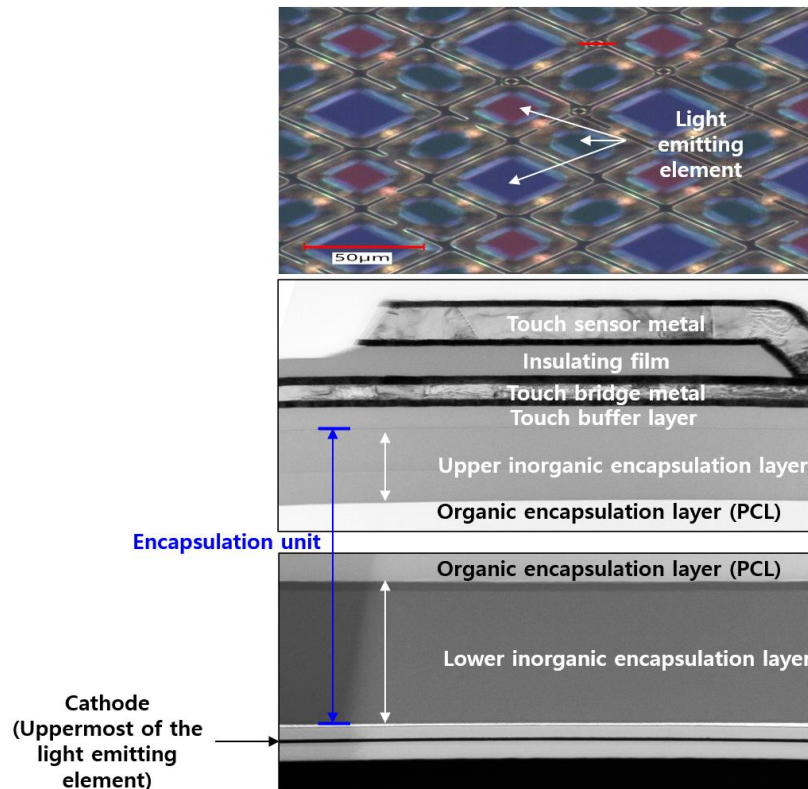
278. Each of the Accused '394 Tianma Products includes an encapsulation unit disposed on the light emitting elements.

279. For example, Tianma's OLED display panel in the Motorola edge+ includes an encapsulation unit disposed on the light emitting elements.



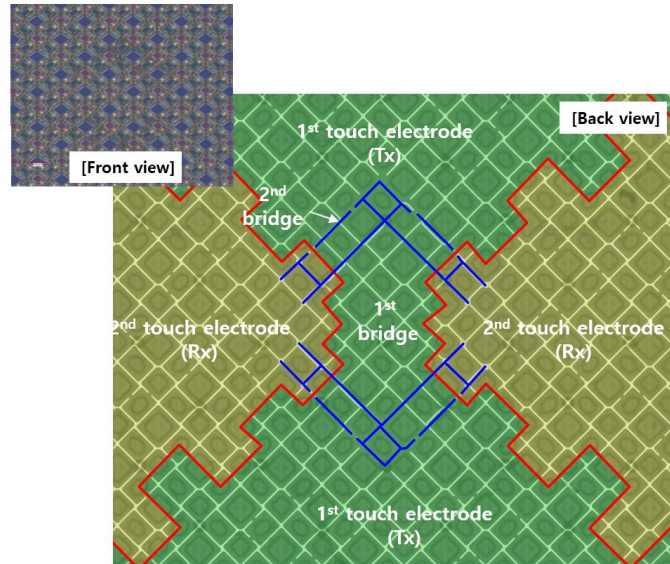
280. Each of the Accused '394 Tianma Products includes touch sensors disposed on the encapsulation unit.

281. For example, Tianma's OLED display panel in the Motorola edge+ includes touch sensors disposed on the encapsulation unit.



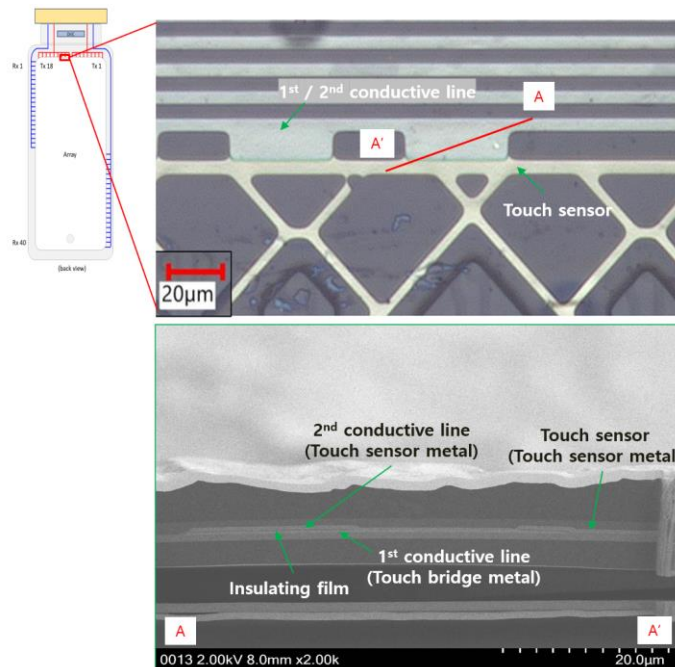
282. In the touch sensors for each of the Accused '394 Tianma Products, a plurality of first touch electrodes and a plurality of second touch electrodes, first bridges configured to connect the first touch electrodes, and second bridges configured to connect the second touch electrodes.

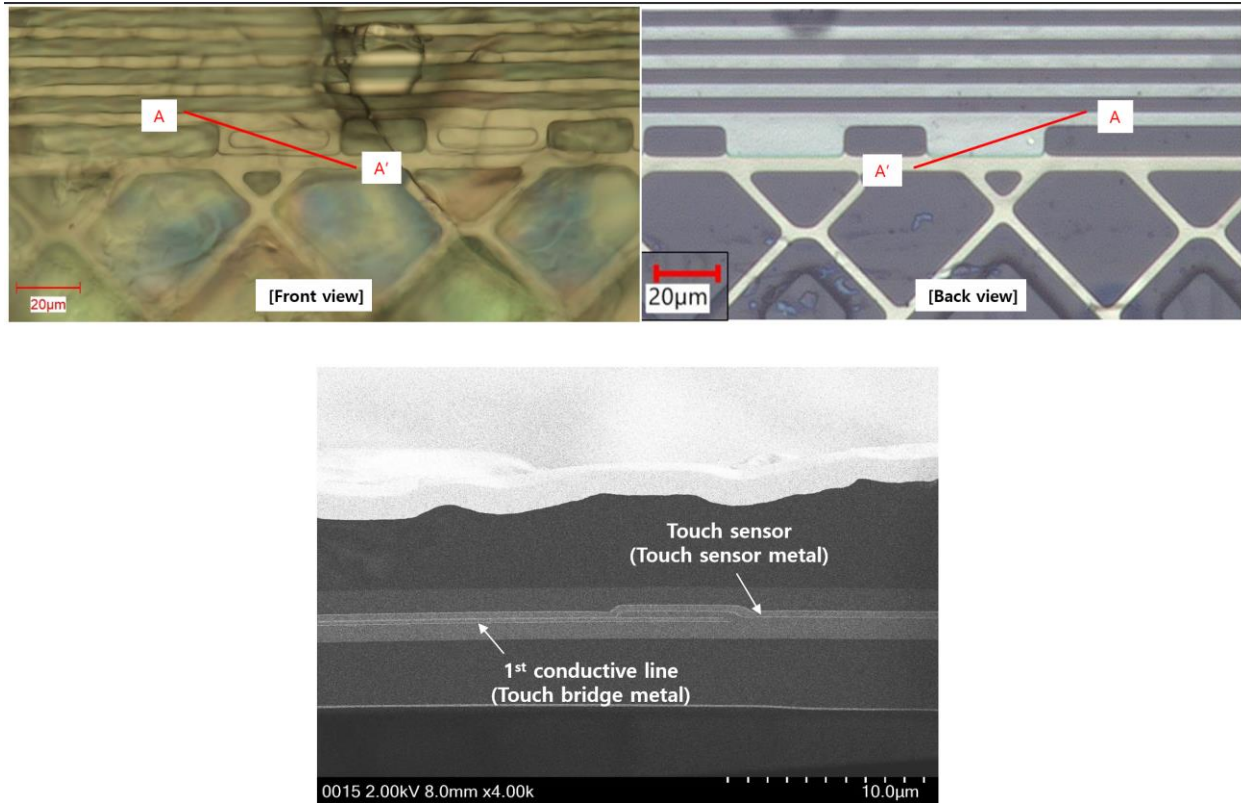
283. For example, the touch sensors for Tianma's OLED display panel in the Motorola edge+ includes a plurality of first touch electrodes and a plurality of second touch electrodes, first bridges configured to connect the first touch electrodes, and second bridges configured to connect the second touch electrodes.



284. Each of the Accused '394 Tianma Products includes first conductive lines connected to the touch sensors.

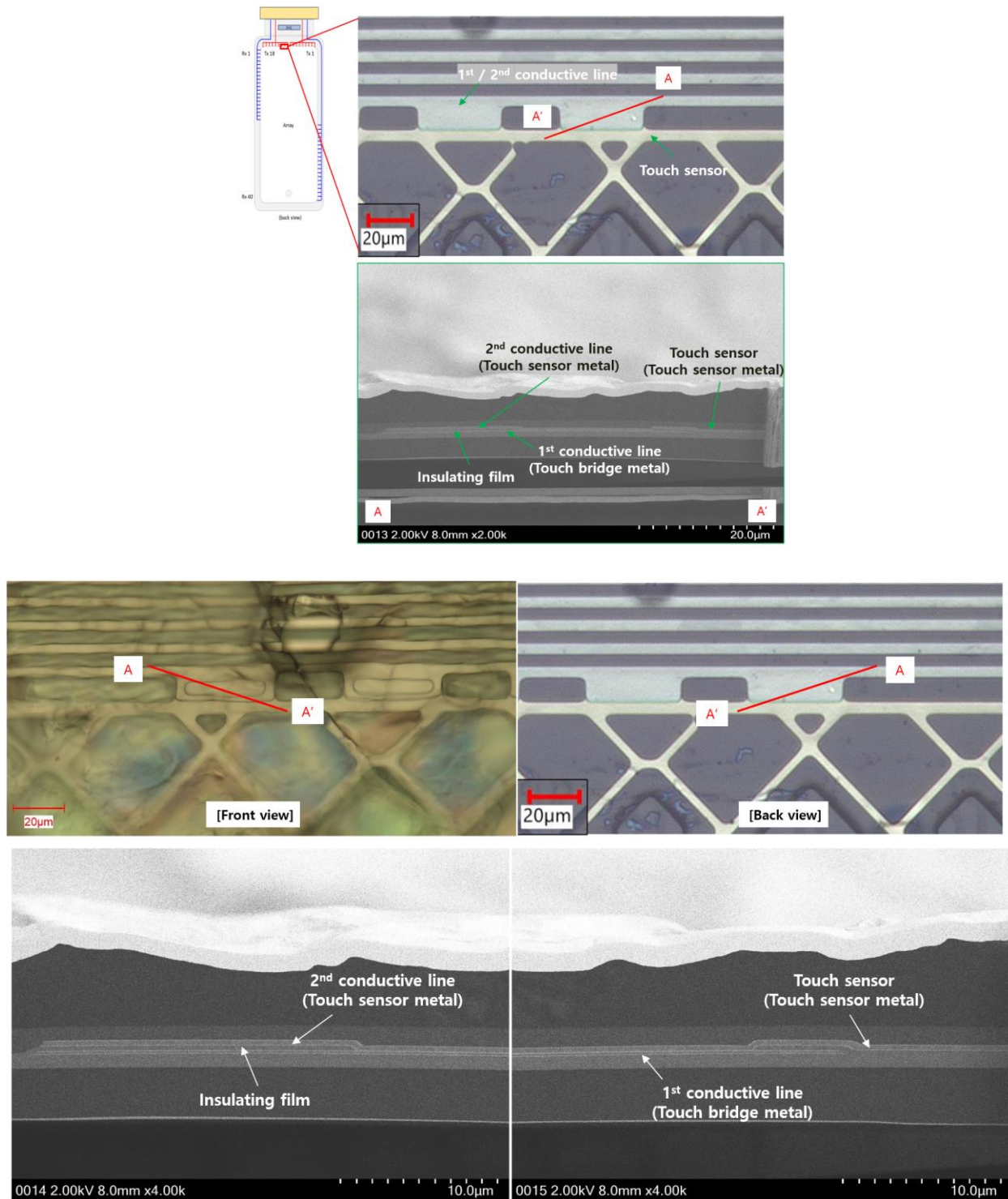
285. For example, Tianma's OLED display panel in the Motorola edge+ includes first conductive lines connected to the touch sensors.





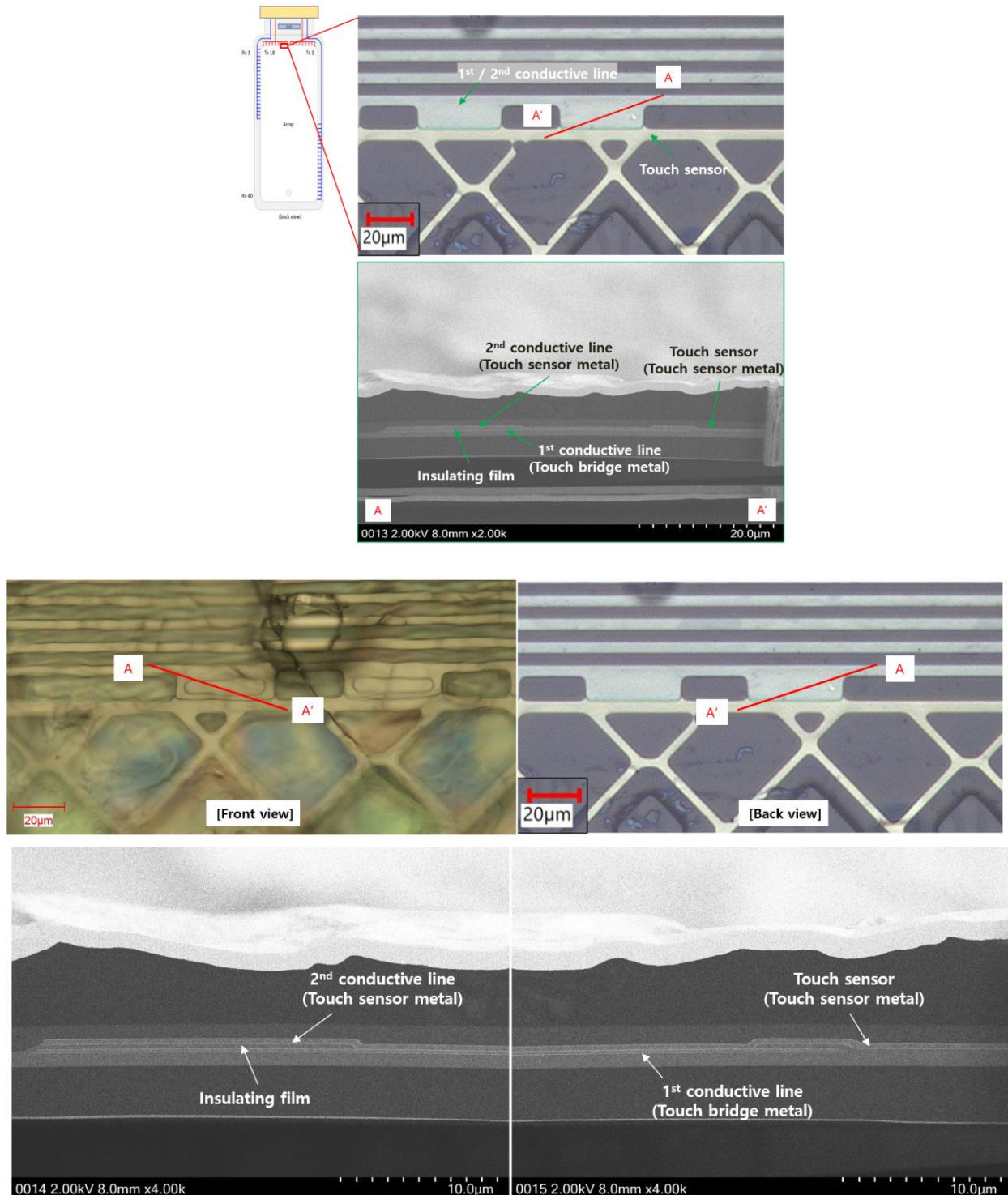
286. Each of the Accused '394 Tianma Products includes second conductive lines connected to the first conductive lines.

287. For example, Tianma's OLED display panel in the Motorola edge+ includes second conductive lines connected to the first conductive lines.



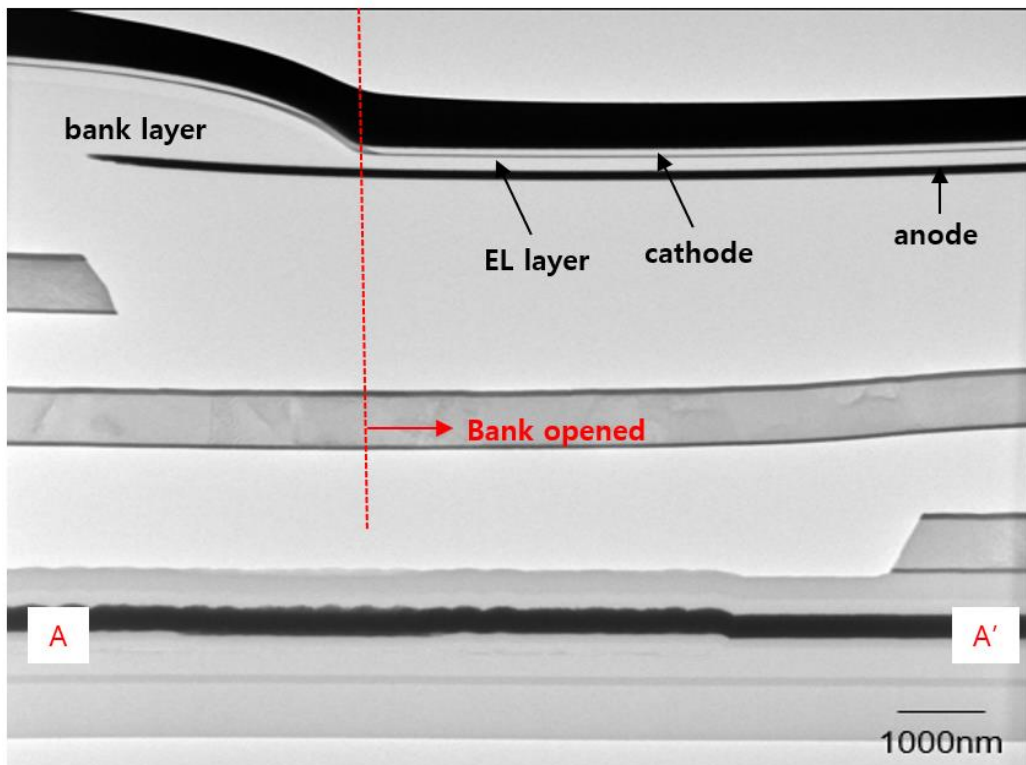
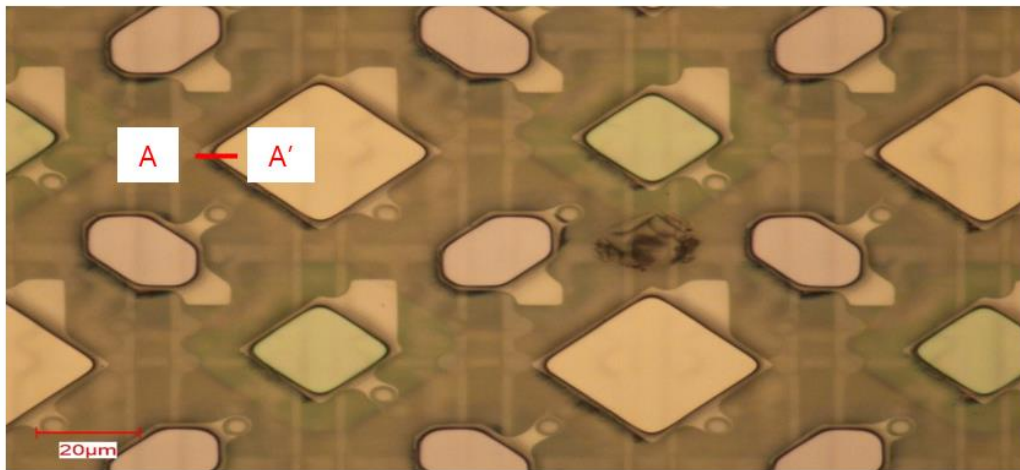
288. Each of the Accused '394 Tianma Products includes at least one insulating film formed of at least one of an inorganic film or an organic film and disposed between the first and second conductive lines.

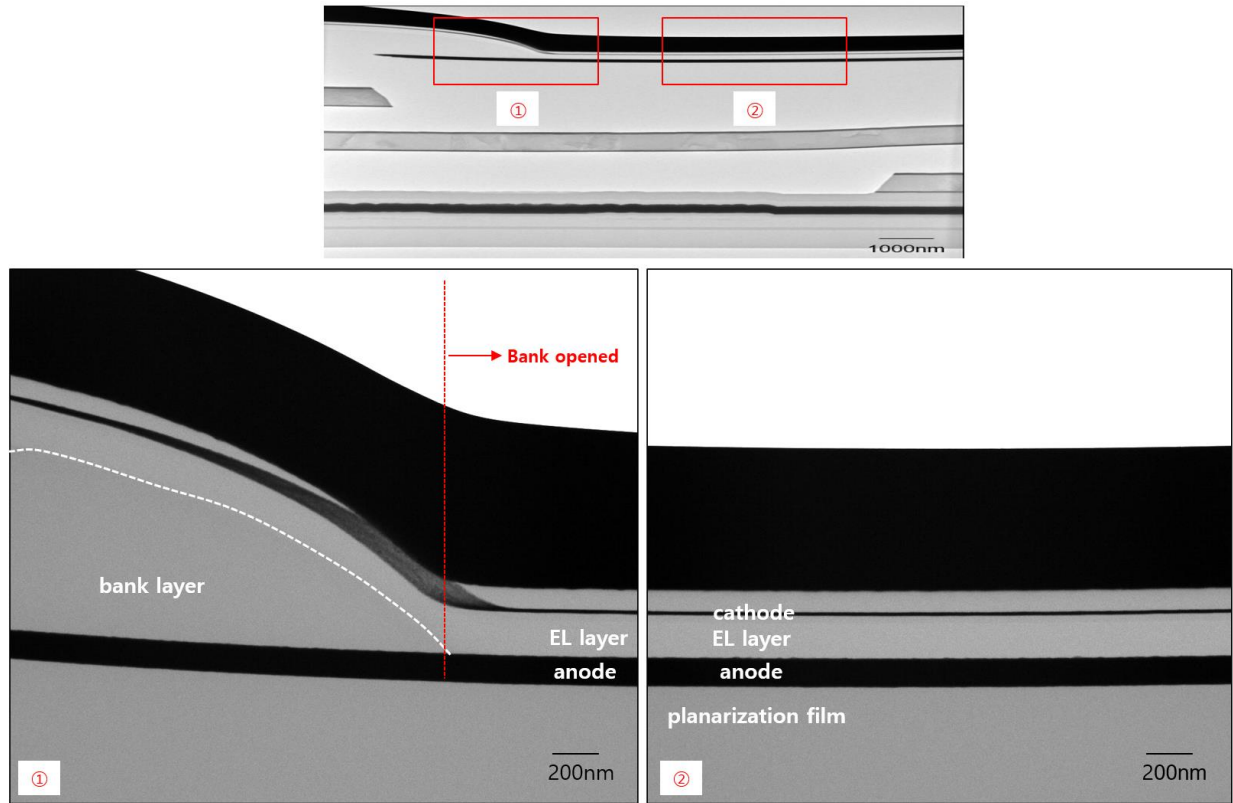
289. For example, Tianma's OLED display panel in the Motorola edge+ includes at least one insulating film formed of at least one of an inorganic film or an organic film and disposed between the first and second conductive lines.



290. Each of the Accused '394 Tianma Products includes a bank configured to expose anodes of the light emitting elements.

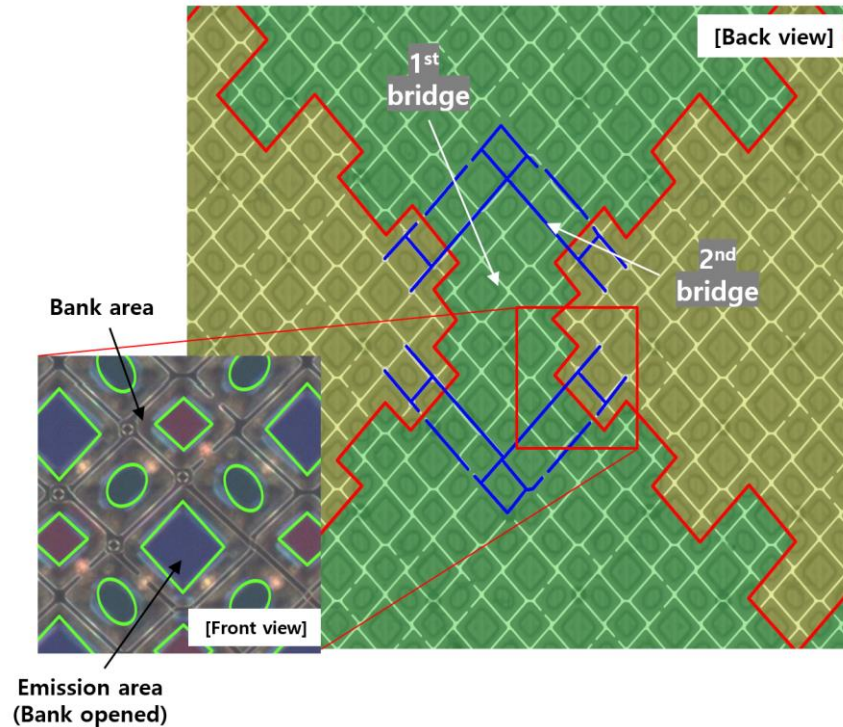
291. For example, Tianma's OLED display panel in the Motorola edge+ includes a bank configured to expose anodes of the light emitting elements.





292. In each of the Accused '394 Tianma Products, at least one of the first bridges or the second bridges overlaps the bank.

293. For example, in Tianma's OLED display panel in the Motorola edge+, at least one of the first bridges or the second bridges overlaps the bank.



294. The foregoing establishes Tianma's direct infringement of at least claim 1 of the '394 Patent under 35 U.S.C. § 271(a).

295. In addition, Tianma has indirectly infringed, and on information and belief intends to continue to indirectly infringe including after the filing of this complaint, at least claim 1 of the '394 Patent by, among other things, actively inducing its customers and affiliates to make, use, sell, and/or offer to sell and/or to import at least the Accused '394 Tianma Products. Tianma committed these acts of inducement with knowledge of the '394 Patent and its infringement thereof, as described earlier. Thus, Tianma is further liable for infringement of the '394 Patent pursuant to 35 U.S.C. § 271(b).

296. Tianma has also contributorily infringed, and on information and belief intends to continue to indirectly infringe including after the filing of this complaint, the '394 Patent. For example, the Accused '394 Tianma Products include hardware that by its arrangement at least meets all elements of claim 1. These are components of a patented machine, manufacture, or

combination. Further, these components are a material part of the invention and upon information and belief are not a staple article or commodity of commerce suitable for substantial non-infringing use. Thus, Tianma is also liable for infringement of the '394 Patent pursuant to 35 U.S.C. § 271(c).

297. Unless and until enjoined by this Court, Tianma will continue to infringe as well as induce and contribute to infringement of the '394 Patent. Tianma's infringing acts are causing and will continue to cause LG Display irreparable harm, for which there is no adequate remedy at law. Under 35 U.S.C. § 283, LG Display is entitled to a permanent injunction against further infringement.

298. Tianma had notice of the '394 Patent and details of Tianma's infringement thereof at least as of the filing and service of this Complaint.

299. By the time of trial, Tianma will thus have known and intended (since receiving this notice) that its continued actions would actively induce and contribute to actual infringement of at least claim 1 of the '394 Patent.

300. Tianma undertook and continued its infringing actions despite an objectively high likelihood that it infringed the '394 Patent, which has been duly issued by the USPTO, and is presumed valid. On information and belief, Tianma could not reasonably, subjectively believe that its actions do not constitute infringement of the '394 Patent, nor could it reasonably, subjectively believe that the patent is invalid. Despite that knowledge and subjective belief, and the objectively high likelihood that its actions constitute infringement, Tianma continued its infringing activities with knowledge of the '394 Patent. As such, Tianma has willfully infringed and continue to willfully infringe the '394 Patent.

301. LG Display has been and continues to be damaged by Tianma's infringement of the '394 Patent.

**PRAYER FOR RELIEF**

WHEREFORE, LG Display prays for relief as follows:

302. A judgment declaring that Tianma has infringed and is infringing one or more claims of the Asserted Patents;

303. A judgment awarding LG Display compensatory damages as a result of Tianma's infringement of one or more claims of the Asserted Patents, together with interest and costs, consistent with lost profits and in no event less than a reasonable royalty;

304. A judgment awarding LG Display treble damages and pre-judgment interest under 35 U.S.C. § 284 as a result of Tianma's willful and deliberate infringement of one or more claims of the Asserted Patents;

305. A judgment declaring that this case is exceptional and awarding LG Display its expenses, costs, and attorneys' fees in accordance with 35 U.S.C. §§ 284, 285 and Rule 54(d) of the Federal Rules of Civil Procedure;

306. A grant of preliminary and permanent injunctions enjoining Tianma from further acts of infringement of one or more claims of the Asserted Patents; and

307. Such other and further relief as the Court deems just and proper.

**JURY TRIAL DEMANDED**

LG Display hereby demands a trial by jury.

Dated: June 13, 2025

By: /s/ Don H. Min

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Kfir B. Levy

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